DOCUMENT RESUME

ED 261 013 SP 026 199

TITLE	Prospects for a Healthier America: Achieving the Nation's Health Promotion Objectives. Proceedings (Washington, D.C., February 6-7, 1984).
INSTITUTION	Public Health Service (DHHS), Rockville, MD. Office of Disease Prevention and Health Promotion.
PUB DATE	Nov 84
NOTE	92p.
PUB TYPE	Collected Works - Conference Proceedings (021)
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	Educational Objectives; *Health Education; *Health Needs; Public Health
IDENTIFIERS	*Health Promotion

ABSTRACT

This document contains the proceedings of a two-day meeting sponsored by the Public Health Service of the U.S. Department of Health and Human Services. Representatives from more than 60 national groups from the public and private sectors participated in discussions of health promotion objectives for the nation and formulated recommendations on how to achieve those objectives. The background papers and recommendations highlight health promotion in health care settings, worksite wellness, involvement of schools in the national strategy in improving the health of Americans, and the role of voluntary organizations in health promotion. (BA)

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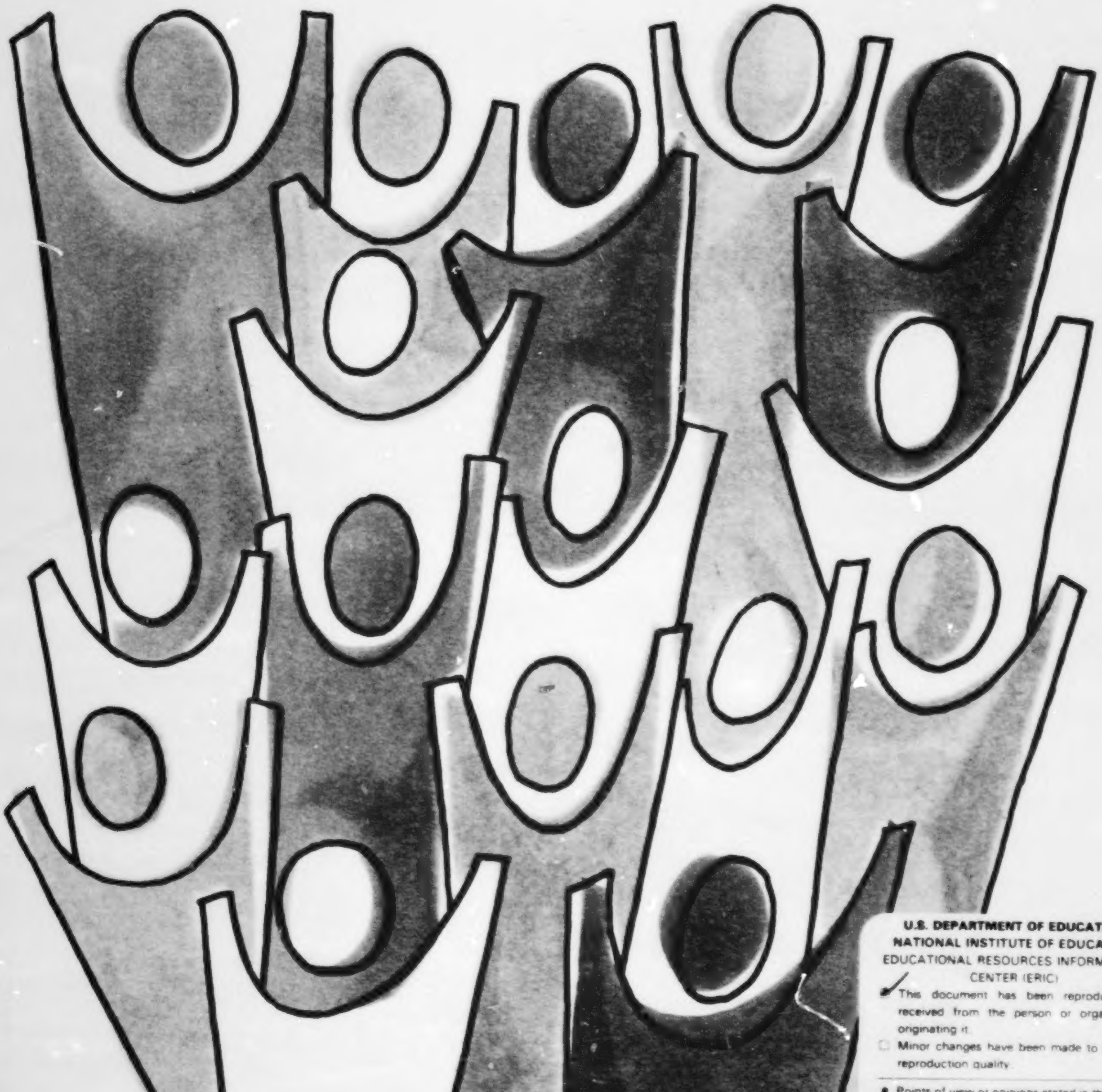
Proceedings of

PROSPECTS FOR A HEALTHIER AMERICA:

Achieving the Nation's Health Promotion Objectives



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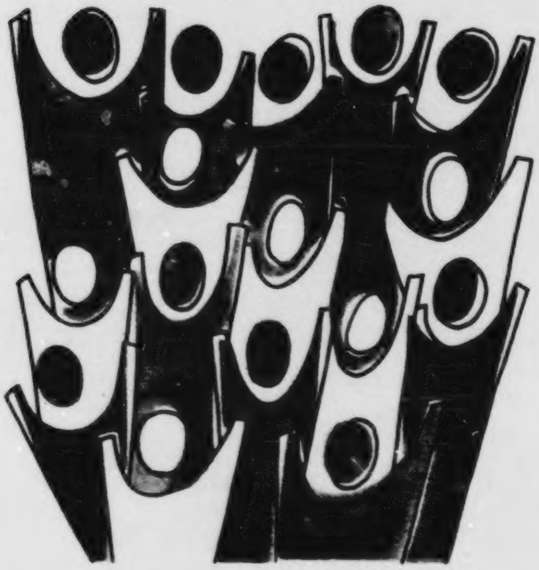
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES/Public Health Service

Proceedings of

PROSPECTS FOR A HEALTHIER AMERICA:

Achieving the Nation's Health Promotion Objectives

February 6-7, 1984
Washington, D.C.



November 1984
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Office of Disease Prevention and
Health Promotion

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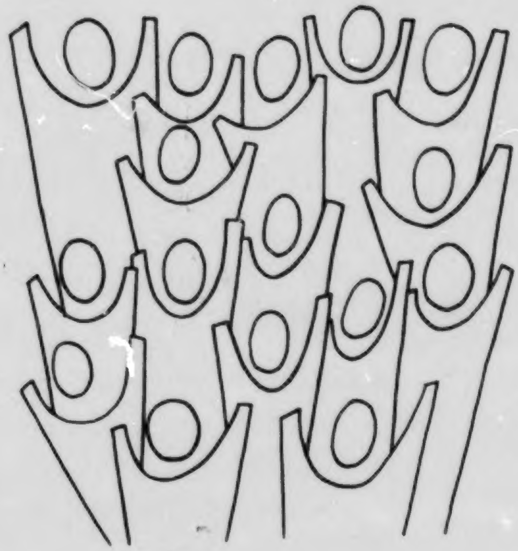

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Edward N. Brandt, Jr.

Foreword

Prospects for a Healthier America: Achieving the Nation's Health Promotion Objectives contains the proceedings of a two-day meeting at which representatives from more than 60 national groups from public and private sectors participated in discussions of the health promotion objectives for the Nation and formulated recommendations on how to achieve those objectives.

A set of major goals for improving the health of Americans over the coming decades was first introduced with the publication in 1979 of *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention.* By setting forth health improvement goals for the Nation, *Healthy People* helped shed light on the second public health revolution in the United States.

The first revolution came with the dramatic shift in the leading causes of death and disability in the United States: Infectious diseases are no longer the leading causes of death; rather, coronary heart disease, cancer, stroke, and accidents represent the four leading causes of death for Americans. Controllable risk factors—smoking, diet, alcohol use, and lack of exercise—are now associated with the leading causes of death. Action based on new understanding of how Americans can respond to the challenge posed by chronic disease and behavior-related health problems comprises the second public health revolution. Our knowledge about the relation between health and behavior continues to strengthen, and strategies for preventing disease and promoting healthful lifestyles hold the promise of major strides in attaining better health.

The two-day "Prospects for a Healthier America: Achieving the Nation's Health Promotion Objectives" meeting helped to expand the support and cooperative effort of national organizations from a variety of sectors for health promotion strategies and objectives. Included in the meeting proceedings are four background papers that describe the status of health promotion in the schools, business and industry, voluntary organizations, health professions, and health care settings. These papers serve to define the range of ongoing health promotion activities for each of the sectors represented and to identify areas for possible action. This document also presents highlights of the two days of discussion, describes the barriers to action that each sector identified, and includes each group's recommendations for action. The recommendations span both private and public sectors.

The proceedings from this meeting underscore the commitment of the Department of Health and Human Services to enhancing national efforts to improve the health of Americans. It is hoped that the background papers, discussions, and recommendations resulting from the two-day meeting will serve to stimulate thought and action both by the Public Health Service and by private sector groups on ways in which individuals and communities can adopt healthful behaviors.

Edward N. Brandt, Jr., M.D.
Assistant Secretary for Health
U.S. Department of Health and Human Services
Public Health Service

Acknowledgment

We would like to express our thanks to the members of the Public Health Service Advisory Group, who played a vital role in planning this meeting:

John Bagrosky	*Office of Smoking and Health*
Cheryl L. Damberg	*Office of Disease Prevention and Health Promotion*
Alan Kaplan	*Food and Drug Administration*
Marshall Kreuter	*Centers for Disease Control*
William Lassek	*Department of Health and Human Services Region III*
Susan K. Maloney	*Office of Disease Prevention and Health Promotion*
Audrey Manley	*Health Resources and Services Administration*
Mel Segal	*Alcohol, Drug Abuse, and Mental Health Administration*
Glenn Swengros	*President's Council on Physical Fitness and Sports*
Michael White	*National Institutes of Health*

Conference Agenda

Monday, February 6, 1984
10:30 a.m. — 12:00 noon

Plenary Session

WELCOME

Margaret M. Heckler
Secretary,
Department of Health and Human Services

Edward N. Brandt, Jr., M.D.
Assistant Secretary for Health

KEYNOTE ADDRESS

Merlin K. DuVal, M.D.
President, Associated Health Systems

OVERVIEW: OBJECTIVES FOR THE NATION

J. Michael McGinnis, M.D.
Deputy Assistant Secretary for Health

1:30 p.m. — 5:30 p.m.

Concurrent Work Group Sessions

Health Care Settings
- *Facilitator:* Carol Scatarige, M.D.
- *Recorder:* Jeffrey Newman, M.D.

Health Professions
- *Facilitator:* William Lassek, M.D.
- *Recorder:* Carol Delaney

Business and Industry
- *Facilitator:* Ruth A. Behrens
- *Recorder:* Judy Murphy

Voluntary Associations
- *Facilitator:* Susan K. Maloney
- *Recorder:* Terry Bellicha

Schools
- *Facilitators:* Glen G. Gilbert, Ph.D., and Roy Davis
- *Recorder:* Beth Layson

Tuesday, February 7, 1984
9:00 a.m. — 4:00 p.m.

Concurrent Work Group Sessions

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American Alliance for Health, Physical Education,
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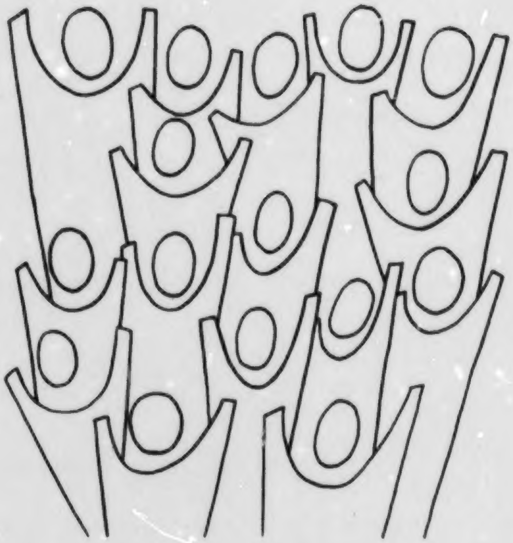
Section 1:
Introduction and Meeting Highlights



The conference on *Prospects for a Healthier America: Achieving the Nation's Health Promotion Objectives* demonstrated the continuing commitment of the Federal government to a disease prevention and health promotion policy designed to bring about further improvements in the health of the American people.

The effort began in 1979 with the publication of *Healthy People—The Surgeon General's Report on Health Promotion and Disease Prevention,* which noted the shifting patterns of death and disease—from acute infections to chronic disease and accidents—and supported the view that future gains in the health of the American people would come, not from increases in medical care, but from a national commitment to disease prevention and health promotion. The Surgeon General set down five major goals designed to improve the health status of all age groups by 1990. The report stressed that the goals could be achieved only through the combined efforts of all segments of society, from the Federal government to the individual citizen.

The second phase began in 1980, when *Promoting Health/Preventing Disease: Objectives for the Nation* translated those goals into a series of specific objectives.

This conference, *Prospects for a Healthier America: Achieving the Nation's Health Promotion Objectives,* was designed to acquaint various national organizations with the Objectives for the Nation and to encourage their participation in a coordinated effort to achieve them by 1990.

Members of more than 50 national organizations representing health care settings, health professions, business and industry, voluntary organizations, and schools gathered in Washington, D.C. for the two-day meeting to study and discuss the objectives and to make recommendations.

The overall success of the conference is reflected in the fact that in the recommendations, each of the groups noted the importance of the objectives in their missions and made specific suggestions about ways in which the Federal government and the private sector could cooperate in achieving the Nation's health promotion goals.

The conference began with a short plenary session that included a welcome from Secretary of Health and Human Services, Margaret M. Heckler. Mrs. Heckler reiterated the Department's commitment to national efforts to improve the health of Americans and pointed to some encouraging signs of progress: fewer people are smoking and more people are exercising, two excellent examples of health enhancing behaviors which can contribute to improvements in individual health status.

Secretary Heckler was followed by the Assistant Secretary for Health, Edward N. Brandt, Jr., M.D., who welcomed the conferees as "integral members of the national health team," and added,

> We have a major task ahead of us: getting people to place a greater value on their own abilities to promote their own health and prevent disease from

> striking themselves and their families. This is a formidable task and cannot be achieved by government alone. We need your involvement. The *country* needs your involvement.

To illustrate the nation's ability to achieve the objectives, Dr. Brandt presented a number of examples of instances in which goals already have been reached:

1. Objective:
   Fewer than 50 reported cases of diphtheria among American children by 1990.
   Achievement:
   In 1982 only three cases of diphtheria were reported in the U.S.
2. Objective:
   To reduce the annual caseload of paralytic polio and congenital rubella syndrome below 10 each by 1990.
   Achievement:
   In 1982 there were only 7 cases of each disease.
3. Objective:
   That by 1990 fewer than 60 percent of 9-year-old children would have had cavities in any of their permanent teeth.
   Achievement:
   In 1982, only about 51 percent of 9-year-olds had cavities.
4. Objective:
   To reduce the annual rate of work-disabling injuries to 83 per 1000 full-time workers by 1990.
   Achievement:
   Current data from the Bureau of Labor Statistics indicate the rate has already come down to 81 per 1000 full-time workers.

Noting that "we have a long distance to travel yet in health promotion," Dr. Brandt added that "by 1990

- we want fewer than one adult in four to be smoking...
- we want fewer youngsters to be suffering from illnesses associated with alcohol and other drugs...
- we want to bring down the daily intake of sodium among American adults...
- we want to lower the levels of serum cholesterol in all adults...and,
- we want to convince at least 75 percent of all new mothers that the best diet they can offer their new babies is breast milk."

In order to accomplish this task, the full support of private voluntary organizations and professional associations is required, Dr. Brandt said.

In his keynote presentation, Merlin K. DuVal, M.D., President and Chief Executive Officer of Associated Health Systems and a former Assistant Secretary for Health, noted that both medical and environmental risks are being increasingly well addressed; however, the nation is doing less well "with those self-imposed risks that also affect health, most of which are expressions of personal choice." Dr. DuVal described the health promotion objectives as realistic and said their establishment was an appropriate function of the Department of Health and Human Services (DHHS). Because individual choice and behavior are the principal targets of the health promotion objectives, Dr. DuVal said the major responsibility of achieving the goals should be shouldered by the private sector and the Federal government's role should be a minor one.

For example, Dr. DuVal said, schools should take the lead in educating their students about personal health matters, and private industry should realize that it has a definite stake in the health of its employees.

Dr. DuVal noted the importance of free choice and stressed that it must be acknowledged in any effort to influence personal behavior. However, he said he believes that with proper motivation, the health promotion objectives could be achieved.

The final speaker of the plenary session was J. Michael McGinnis, M.D., Deputy Assistant Secretary for Health, and Director of the Office of Disease Prevention and Health Promotion. Dr. McGinnis outlined the health promotion goals and reviewed the management-by-objectives approach on which they are based. (See Section 2: Partnerships for Health Promotion)

Following the plenary session, the conferees were organized into five working groups. Starting with specially prepared background papers (see Section 4) the groups discussed the Objectives in the context of their own health care interests and made specific recommendations. Highlights of the work group sessions follow. (See Section 3 for more detailed reports and a complete list of recommendations.)

HEALTH CARE SETTINGS WORK GROUP

This work group—representing hospitals, health maintenance organizations (HMOs), group practices, community health centers, and individual health care practitioners—discussed a number of issues related to the participation of health care settings organizations in health promotion activities. They included the lack of rapid dissemination of new information to support the effectiveness of health promotion strategies and the failure of third party payers to pay for health promotion services.

These, and other barriers, have contributed to the problem of motivating health care providers to become actively involved in the provison of health promotion services.

The workgroup's recommendations included suggestions that DHHS support research and evaluation of effective health promotion strategies and develop a system for the rapid dissemination of the results to health care settings organizations. It was agreed that the organizations themselves should develop policy statements on health promotion, develop continuing education programs for their members in health promotion and in behavioral medicine, and unite in coalitions to share information about effective programs.

HEALTH PROFESSIONS WORK GROUP

This work group brought together individuals from the fields of preventive medicine, family practice medicine, psychology, dentistry, nursing, and nutrition. All felt the 1990 Health Promotion Objectives should be endorsed and that their organizations had a role to play in the achievement of the objectives. However, current efforts were seen as diffuse, with little attention being paid to coordination or evaluation. Specific barriers identified were lack of effective health promotion tools for practitioners to work with, chronic underfunding (including the lack of third party payment for health promotion services), the lack of health professionals, resistance to health promotion by patients and providers, and the isolation of private practice, which can be a problem in the provision of health promotion services.

The members of the work group recommended endorsement of the 1990 Objectives, suggesting the Public Health Service (PHS) organize a process for meaningful endorsement by health professions organizations. Other recommendations included specific modification and revision of some of the Objectives; conduct evaluation of health information and materials; exploring the possibility of dividing the responsibility for some of the Objectives among different groups to make the most efficient use of limited resources; and the establishment of a joint PHS/Health Professions Task Force as a follow-up to the meeting.

BUSINESS AND INDUSTRY WORK GROUP

This work group was supportive of the 1990 Health Promotion Objectives in general and the worksite objectives in particular. Barriers to business and industry involvement in health promotion included the lack of conclusive data to support the bottom-line effectiveness of health promotion efforts; disagreement about whether businesses should try to influence employee lifestyles; difficulties in reaching smaller businesses; lack of staff and money to develop programs; the absence of strong leadership from both government and industry; and today's economic climate.

The work group recommended that the Federal government support the development and evaluation of worksite health promotion programs and serve as a central source of information on programs and materials. However, it was agreed that the application of worksite programs should be the responsibility of the private sector. The group also called on the Federal government to increase the excise taxes on tobacco and alcohol and reduce tobacco price subsidies. The group also suggested an additional objective to stimulate business involvement in high blood pressure control.

VOLUNTARY ASSOCIATIONS WORK GROUP

Much of the discussion in this work group revolved around the issue of territoriality, which fosters competition among voluntary groups seeking to protect their "turf" and which can, as a result, dissipate the effectiveness of health promotion efforts. The work group agreed that there was a real need for greater cooperation among voluntary organizations. Other priority issues they identified included the need for behavioral research on what works in health promotion; the need for culturally relevant programs to address the needs of minorities and special population groups; and the need to develop mechanisms for greater cooperation in planning and implementation.

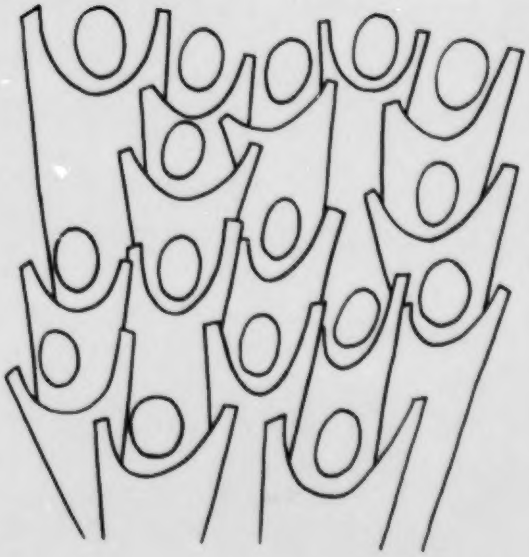
The Voluntary Organizations Work Group's recommendations included a suggestion that the Public Health Service explore the possibility of a formal partnership with voluntary and private groups to implement the 1990 Health Promotion Objectives.

SCHOOLS WORK GROUP

This work group, representing a cross section of the educational community, agreed that the best way for schools to help achieve the 1990 Health Promotion Objectives was to provide comprehensive school health programs. Barriers to such programming included lack of coordinated support for such comprehensive programs, as opposed to categorical approaches by educational organizations and Federal agencies; the failure of many communities to include school health education as a basic component of education; and the lack of health promotion training opportunities for teachers and administrators.

The work group's recommendations contained a variety of suggestions to overcome these obstacles, including increased support for comprehensive school health programs. Other recommendations included increased school based heath promotion research and support for improved evaluation instrument development, the development of a publication to provide schools with specific information on the 1990 prevention initiative, improved training for health educators, closer cooperation between the Federal government and educational organizations supporting comprehensive school health, and standardization of student health records.

J. Michael McGinnis



Section 2:
Partnerships for Health Promotion

Early in the last century the young French intellectual, Alexis de Tocqueville, toured the United States and went home to write a book entitled *Democracy in America*. He said, in effect, that we Americans could accomplish anything we set our minds to, and that what we hadn't achieved we just hadn't thought of tackling yet.

The organizations at this meeting represent nearly every segment of our society concerned with improving the quality of life in America—education, business and industry, labor, health care, women, youth, and the elderly. You and your organizations have the experience and the commitment to make things happen, as demonstrated by the improvements you have helped make in the health and health awareness of Americans in recent years.

Now, with a bow to de Tocqueville, we invite you to consider something that America hasn't attempted before.

The Health Promotion Objectives for the Nation comprise the first long-term systematic plan to improve the health of Americans in every age group and in specific health categories—and to do it by 1990.

The Objectives are not primarily about disease treatment and control, though there are some elements of that. They are about preventing disease and encouraging people to protect their health.

We can concentrate on disease prevention and health promotion because the long struggle against infectious diseases is just about over. It was, however, a herculean effort. Our grandparents lived with a Pandora's box of highly contagious diseases—influenza, typhoid, diphtheria, smallpox, scarlet fever, and many others. Our parents grew up in an era when epidemics of paralytic polio closed schools and turned summer into a season of fear.

We have come a long way, thanks to research that developed effective vaccines and massive immunization programs that reached most of the population.

The diseases that put us most at risk today are chronic and largely preventable, particularly heart attack, cancer and stroke. Among young people accidents—many of them alcohol and drug related—are the major killers. These preventable problems are those addressed by the 1990 Health Promotion Objectives. Beyond that, however, the Objectives seek to promote health in the broadest sense. For example, I like the World Health Organization's definition: "Health is a state of complete physical, emotional, and social well being, not merely the absence of disease or infirmity."

The Objectives themselves are the result of a decade of thoughtful deliberation—and some forceful debate—by specialists in virtually every field concerned with public health.

Based on conferences, task force meetings, and give-and-take about what could reasonably be accomplished

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This speech was given by J. Michael McGinnis, M.D., at the plenary session of *Prospects for a Healthier America: Achieving the Nation's Health Promotion Objectives*. Dr. McGinnis is a Deputy Assistant Secretary for Health and the Director of the Office of Disease Prevention and Health Promotion.

by 1990—assuming no major funding increases and no major research breakthroughs—goals were set for improving the health of each age group in the population.

The goals were presented in *Healthy People—The Surgeon General's Report on Health Promotion and Disease Prevention*, published in 1979. This landmark document identified the following goals:

- For infants, the goal is 35 percent lower death rate than the 14.1 deaths per 1,000 live births that occurred in 1977. That would mean less than 9 deaths per 1,000 live births by 1990. By 1982, we were already halfway there. Deaths were down to 11.2 per 1,000 live births.

  There are also two subgoals for infants:
  - —to reduce incidence of low birth weight infants;
  - —to reduce birth defects.
- For children, ages 1-14, the goal is a 20 percent lower death rate. That would be less than 34 deaths per 100,000 population by 1990, compared with 43 in 1977. By 1982, we were closing fast on this goal with deaths down to 36 per 100,000.

  Subgoals for children are:
  - —to enhance childhood growth and development;
  - —to reduce childhood accidents and injury.
- For adolescents and young adults, ages 15-24, we seek a 20 percent lower death rate, from 117 per 100,000 population in 1977 to less than 93 in 1990. The figure in 1982 was down to 105.

  Subgoals in this age group are:
  - —to reduce death and disability from motor vehicle accidents;
  - —to reduce the misuse of alcohol and drugs.
- For adults, ages 25-64, our goal is a 25 percent lower death rate, from 540 in 1977 to less than 400 per 100,000 population in 1990. In 1982, the figure had already declined by more than a hundred—to 436 deaths per 100,000 population.

  Subgoals for adults are:
  - —to reduce heart attacks and strokes;
  - —to reduce the incidence of cancer.
- For older adults, ages 65 and over, the goal is a 20 percent reduction in days of restricted activity, to less than 30 days per year.

  Subgoals for older adults are:
  - —to increase the proportion of older people who can function independently;
  - —to reduce premature death and disability from influenza and pneumonia.

The Surgeon General's report also identified improvements in 15 priority areas needed to reach the goals. The target areas fall into three natural groupings: personal preventive services, health protection, and health promotion.

Preventive services are those provided by physicians, hospitals, and other health care providers, and the targets are high blood pressure control, family planning, pregnancy and infant health, immunizations, and control of sexually transmitted diseases.

Health protection concerns efforts by government, industry, and other organizations to reduce health hazards in the environment. Targets include toxic agent control, occupational safety and health, accident prevention and injury control, water fluoridation and dental health, and surveillance and control of infectious diseases.

Health promotion concerns programs to educate the public about the risks involved in health abuses and to increase public commitment to sensible lifestyles that can add years to life. Targets here are the health risks of smoking, alcohol and drug misuse, and stress and violent behavior, along with the benefits derived from good nutrition and physical fitness.

After the health goals were published in *Healthy People*, the next step was to develop a series of objectives—step-by-step activities—for the 15 target areas. They were developed by various public and private groups and published in 1980 in *Promoting Health/Preventing Disease: Objectives for the Nation*.

Specific agencies or offices of the Department of Health and Human Services have been assigned to oversee the federal effort. These agencies also provide leadership to other organizations in a combined effort to achieve the objectives for each target.

This comprehensive plan is not a federal plan, to be administered from Washington. It is a plan to be implemented by the nation. We will do our best, of course, but attainment of the goals by 1990 will depend in large measure on the participation of state and local health agencies and organizations such as yours, both in the public and private sectors.

So as I describe the 1990 Objectives for the Nation, I hope you will consider how the goals and objectives of the plan are compatible with the goals and objectives of your organizations—and how we can work together to make them serve the nation.

A Healthy America

Before discussing the Objectives in some detail, let us look at some of the tremendous advances in the health of Americans in this century.

Life expectancy in the United States has increased markedly since 1900. A child born in 1980 can expect to live 24 years longer—to age 73—than his great-grandfather born at the turn of the century. The man of 45 in 1900 could have expected to live another 24.8 years, to age 69.8. The man of 45 in 1980 could expect to live to age 77.1—7.3 years longer than his grandfather.

Surprisingly, the life expectancy of mature Americans has increased faster in the last 30 years than that of infants. In the half century 1900-1950, life expectancy for newborns went up 38.4 percent while that for people aged 45 increased only 14.9 percent. But in the next 30 years, 1950-1980, life expectancy at birth increased by only 8.1 percent compared with a significant 12.6 percent gain for 45-year-olds.

A full two years of the increased life expectancy for the man of 45 occurred in the 1970-1980 decade. We feel sure these extra two years are due to a 25 percent decline in deaths from heart attacks and a 40 percent drop in deaths from stroke.

The most remarkable health gain since 1900 shows up in the survival rates of infants and children. By 1980, the provisional death rate for infants was less than one-tenth the rate at the turn of the century. For children ages 1-14, the 1980 rate was down to one-twentieth the level of 1900.

As infectious diseases were brought under control, a dramatic shift in the leading causes of death occurred: Chronic diseases replaced infectious diseases as the major causes of death. In 1900, influenza and pneumonia were the leading killers, claiming 210 people in every 100,000. Tuberculosis was second, taking 199 lives in 100,000. By 1980, heart disease was the number one killer, claiming more than 200 lives per 100,000 population. Cancer was second. Alarmingly, since they are almost totally preventable, accidents were the third major cause of death. Stroke ranked fourth.

Objectives for the Nation

Let us turn now to the Health Promotion Objectives themselves, as published by the Surgeon General in 1980. The Objectives represent management strategies that we believe give us a good chance of reaching the health goals for each of the population groups by 1990.

The Objectives—some 227 in all—are keyed to the 15 targets in the three groups mentioned earlier (i.e., personal preventive services, health protection, and health promotion). In some cases, objectives apply to more than one target area.

There are nine objectives to control high blood pressure. They include reducing, by measurable amounts, such risk factors as the salt intake of adults and the weight of people who are significantly overweight.

Controlling high blood pressure requires action by the private sector as well as by government. For example, one objective is to guarantee that, by 1990, no geopolitical area in the United States is without an effective program to identify people with high blood pressure and to follow-up on their treatment. Another objective to be reached by 1985 requires that at least 50 percent of processed food sold in grocery stores should be labeled—in language people can understand—to inform the consumer of salt and caloric content.

Going down the list of other preventive service targets, we find 10 objectives for family planning, 19 for pregnancy and infant health, 19 for immunization, and 11 for control of sexually transmitted diseases. The health protection and health promotion group targets have similar sets of objectives.

To the credit of many individuals and groups, it can be reported that today, six years ahead of schedule, eight objectives on the 1990 timetable have already been met.

For example, a pregnancy and infant health objective is to assure that virtually all newborns are screened for metabolic disorders for which we have adequate tests and treatment. In 1981, more than 95 percent of newborns received such screening.

A dental health objective is to reduce to 60 percent the proportion of 9-year-old children with cavities in their permanent teeth. The proportion of these children with cavities has already dropped to nearly 50 percent.

A family planning objective is to reduce the sales of oral contraceptives containing more than 50 micrograms of estrogen to 15 percent of total sales. In 1982, the products in question accounted for less than 11 percent of sales.

An occupational safety and health objective is to lower the rate of work-disabling injuries to 8.3 per 100 full-time workers. The current level is already below the objective—8.1 per 100 full-time workers.

These examples show how the objectives are designed to measure progress that will, little by little, affect the health of people in each of the five population groups we are trying to improve.

For example, tests and treatment for newborns with metabolic disorders will help to lower death rates for infants and young children. Lower salt intake and treatment programs for people with high blood pressure will help reduce deaths from stroke, one of the leading killers.

The targets we particularly need to work on between now and 1990 are those in the health promotion area. They are the most difficult to achieve—and to measure progress as we go—because they require that millions of people change their daily habits and modify their lifestyles.

The relationship between smoking and health is the most obvious example. We know that smoking, as someone has described it, is slow-motion suicide. Yet millions of Americans continue to puff away their lives. Misuse of alcohol and drugs is another example. Excessive use destroys marriages, kills on highways, and scars for life untold numbers of young people. Control of stress and violent behavior is yet another example of a target that suggests the need for a major effort in the public interest. So there's much to be done in the health promotion area.

In discussing the Objectives, I have only touched the high points of the conceptual design. As a result, it may seem to be a maze of goals, target groups, risk factors, objectives, and numbers. However, it is the most carefully structured and most comprehensive plan ever devised for improving the nation's health.

States are already using the Objectives in many interesting ways. California, for example, uses them to reinforce its health tracking system. It has selected 58 objectives to assess its existing programs and to project where California should be in meeting these objectives by 1990, compared with the United States as a whole. Michigan uses the Objectives as an organizing tool. The Governor set up a task force to determine which targets are most important in meeting the State's health needs. Utah uses them as a state health department planning device to decide how to structure programs and how best to use federal block grant funds to meet State priorities. Texas called in its own experts and set up task forces to determine which target areas and objectives best meet its health needs. It has assigned priorities to various objectives.

Tied to the plan or not, we fully recognize that every health education program in the nation's schools helps to further these national goals. We know that youth organizations promoting physical fitness contribute. We know that hospital maternity care programs contribute. We know that senior citizen centers offering outreach activities for the elderly help them to stay mobile and alert. We know that industry and labor play a part in their efforts to reduce alcohol and drug abuse and to promote occupational safety.

In other words, there are thousands upon thousands of important health-related programs in operation all over the country that contribute to one or more of the specific objectives in the national plan. And that's exactly what is needed if we are to meet the Nation's Health Promotion Objectives.

Americans are more health conscious than ever, and I think people will respond positively when they know that there is a comprehensive effort underway to help more of us enjoy good health well into the 21st century.

Johann von Goethe, the German poet and contemporary of Alexis de Tocqueville, probably didn't have Americans in mind when he wrote perhaps his most cogent words of advice. And he obviously couldn't foresee any American effort as far-reaching as the Health Promotion Objectives for the Nation. But his words apply to the plan perhaps as no others do: "It is not enough to take steps which may some day lead to a goal; each step must be itself a goal and a step likewise."

Section 3:
Reports and Recommendations of the Work Groups

The following are reports of the discussions and the recommendations of the five work groups. The opinions expressed in the report reflect the views of the participants themselves and are not necessarily those of the organizations they represent or of the Federal government.

HEALTH CARE SETTINGS

In this work group, members of 11 organizations focused their discussion of the 1990 Health Promotion Objectives by addressing three major topics:

- the issues that concern national health care setting organizations in relation to health promotion;
- what national health care setting organizations can do to help achieve the 1990 Health Promotion Objectives; and
- what the Public Health Service can do to facilitate the involvement of national health care setting organizations in health promotion.

The health care settings work group was heterogeneous in that some members represented organizations with a lengthy and considerable involvement in health promotion, whereas others were just beginning to explore the possibility of involvement in such activities. However, all agreed that the 1990 Objectives had some relevance to the work of their organizations.

The group agreed that there were a number of obstacles that made it difficult for their organizations to develop policies or programs endorsing health promotion. These barriers include the following:

- perceived lack of evidence to support the effectiveness of health promotion;
- lack of rapid dissemination of research and evaluation information supporting the efficacy of health promotion stategies;
- the low priority level to which health promotion activities are assigned within health care settings organizations;
- the difficulties small organizations face in developing health promotion programs independently;
- the failure of third party payers to pay for health promotion services delivered by health care providers;
- the difficulty of getting health care providers involved in health promotion because of such perceived problems as patient compliance with therapy, appointment keeping, etc.;
- the lack of adequate, proven models for effective health care provider interventions in health promotion;
- the fact that health promotion activities are confined largely to high socioeconomic groups; and,
- a perceived lack of consistency on the part of the Federal government in such things as advocating smoking cessation while providing subsidies for tobacco growers.

To help overcome these barriers and to involve national health care setting organizations in health promotion, the work group made the following recommendations.

Recommendations to the Department of Health and Human Services:

1. The DHHS, and specifically the Public Health Service, should support research and evaluation of efforts to develop effective strategies for individual and community behavior change.
2. The PHS should facilitate the dissemination of new information about health promotion programs and strategies to health care settings organizations and providers through meetings, clearinghouses or resource centers, and information campaigns aimed at both providers and the public.
3. The DHHS should take the lead in reducing policy inconsistencies in health promotion areas, specifically in the areas of smoking and tobacco subsidies.
4. The PHS should encourage private foundations and voluntary organizations to help develop health promotion progamming for use in health care settings.
5. The PHS should expand the distribution of the 1990 Objectives to health care setting organizations and providers. Also, when reviewing and updating the document, consideration should be given to (a) improving its readability and (b) placing more emphasis on such high risk groups as Blacks, the poor, and the elderly.
6. The PHS should convene meetings of local affiliates or members of national health care setting organizations to encourage the formation of local coalitions to share resources and technical expertise in the development and dissemination of health promotion programs.
7. The PHS should fund demonstration projects aimed at overcoming barriers to health care provider involvement in health promotion.
8. The PHS should limit its involvement in health promotion to facilitating the development of national policy, supporting research, and disseminating information.
9. The PHS should adopt a marketing approach in attempting to involve national health care setting organizations and others in health promotion. This approach involves assessing the needs of the organizations and tailoring PHS efforts to address those needs.

Recommendations to national health care setting organizations:

1. Make members aware of the 1990 Objectives and use currently available communication channels to disseminate information about health promotion policies, programs, and research.
2. Unite to form coalitions to share costs and other resources needed to disseminate health promotion programs.
3. Use health promotion programs, where appropriate, as a means of developing a competitive edge in the marketplace.
4. Adopt policy statements in support of the 1990 Objectives or health promotion in general, or in support of specific issues, such as smoking cessation.
5. Encourage local members to join with voluntary agencies such as the Red Cross in the development of health promotion programs.
6. Lobby Federal and non-Federal institutions to support more health promotion research.
7. Lobby legislatures and the insurance industry to modify health care insurance coverage to pay for personal health promotion services.
8. Devote segments of programs at annual meetings to health promotions topics.
9. Participate in programs designed to evaluate health promotion continuing education programming.
10. Develop catalogs of health promotion resources or projects to persuade organizations that influence the undergraduate or graduate education of health care providers to place more emphasis on the behavioral sciences and other skills necessary to provide health promotion services.

HEALTH PROFESSIONS

This work group included members of 11 organizations who discussed such issues as the diffuse nature of health promotion activities and the fact that too little attention has been paid to evaluation of health promotion interventions. One result is "an embarrassment of riches"—so many activities and programs that it is hard to distinguish among them and/or to assess their quality.

For providers, obstacles to participation in health promotion activities include lack of third party reimbursement; a pressing need for evaluated, tested, and proven health promotion interventions; a lack of training for providers in methods of promoting behavior change in patients; the difficulty for individual providers to undertake health promotion goals by themselves; and, finally, the difficulty of changing patient behavior.

The group also expressed concern with the objectives, particularly the fact that health professional organizations did not participate in their development. Another concern was the lack of focus at the patient-provider interface; that health promotion programs often seem to be designed to work around rather than with the health care provider. This tendency can compel people to look for health promotion services outside the health care system where they may fall prey to practices that are not based on scientific information or principles.

In an effort to answer these concerns, the Health Professions Work Group developed two sets of recommendations, one for the PHS and one for health professions organizations.

Recommendations for the Public Health Service:

1. The PHS should develop a process by which the 1990 Objectives could be reviewed and, where necessary, revised, with participation by health professions organizations.
2. The PHS should consider specific changes in the existing 1990 Objectives, or the development of new objectives, including specific goals for increasing seatbelt use; reducing mortality in the population over 65 (with a subdivision for over 75); narrowing the gap between segments of the population by setting goals for such high risk groups as Blacks and the poor; and the development of objectives for early detection of diseases where early intervention can reduce mortality.
3. The PHS should support research to expand the science base in health promotion and disease prevention, with particular attention to applied research into effective interventions and the patient/provider interface.
4. The PHS should help combat provider skepticism by supporting efforts to provide better access to, and sufficient quantities of, health promotion materials of proven quality and effectiveness.
5. The PHS should take the lead in developing a health professions organizations task force on health promotion and disease prevention along the lines of the National High Blood Pressure coalition, which was cited as an example of cooperation and coordination among different organizations and groups.
6. The PHS should consider the need to oppose unproven or harmful methods of health promotion, if not by direct means then certainly by stronger advocacy of proven effective methods.

Recommendations to health professions organizations:

1. Endorse the 1990 Objectives. Some modification of certain objectives is desirable, but as a whole they are basically sound and should be endorsed.
2. Participate in an ongoing health professions health promotion task force to develop a cooperative and coordinated approach to health promotion.
3. Divide objectives among different groups to make efficient use of available resources and then pool the results. (The proposed task force would facilitate this approach.)
4. Participate in the further development of national objectives. Organizations are more likely to support objectives if they participate in their development.
5. Participate (subject to available funding) in the development of effective health promotion tools and methods through research and demonstration projects.
6. Pursue efforts to encourage third party payers to reimburse for health promotion and preventive health care services.
7. Foster more effective education and training for health professionals in health promotion and disease prevention, with particular focus on how health promotion can be integrated into conventional health care (e.g., finding the "teachable moment"); how different providers can work together to achieve health promotion goals; and, how providers can participate effectively in community based health promotion coalitions.

BUSINESS AND INDUSTRY

The business and industry work group included representatives of 10 national organizations that have businesses or business decision-makers as members or affiliates. Although union representatives were not able to attend the conference, their views were sought and are included in this report.

Group discussion focused on the seven health promotion objectives that call for direct involvement by business and industry. The consensus was that most of the objectives were in keeping with the overall health policies of their groups. One possible exception was the objective calling for state laws to limit smoking in the workplace. Many participants felt this objective should be accomplished through voluntary actions by employers.

During a discussion of how business and labor organizations might integrate the worksite health promotion objectives into their policy structures and convert them to information and education programming, a number of obstacles were identified. They included the following:

- lack of conclusive data supporting the bottom line effectiveness of many health promotion interventions;
- disagreement among business organizations as to the appropriateness of efforts to influence employee lifestyles;
- difficulties in reaching and influencing small businesses;
- lack of knowledge on the part of business leaders as to what programs exist and how they can benefit both employers and employees;
- lack of staff and money to devote to health promotion;
- absence of strong national leadership from business and from government;
- economic conditions that may inhibit implementation of new programs.

Work groups participants also saw a need for materials that convince the business community of the importance of its involvement in achieving the Objectives. It was noted that while large businesses already have shown great interest in health promotion, little has been done to show medium and small businesses how such efforts can benefit them. It was suggested that more be done to educate business about how much illness care costs them and what can be done about it.

Small businesses should be encouraged to work with community organizations and to use community resources to help develop wellness programs for their employees. It was suggested that unions might also contribute by offering health promotion programs for member-employees from several small businesses at centrally located union or community facilities. Several participants also suggested insurance carriers, pharmaceutical companies, physician groups, and similar businesses should do more to support health promotion programs.

Noting that many of today's health promotion programs are aimed at people who are already committed, some work group members urged increased efforts to reach new audiences, such as small businesses. It also was suggested that the Federal government take a leadership role and work with national business groups to develop support for such legislative actions as increases in Federal excise taxes on tobacco and alcohol, elimination of tobacco price supports, and reimbursement by Medicare for alcohol treatment and smoking cessation programs. The group also called on the government to set an example for the business community by providing health promotion programs for its own employees.

The Business and Industry Work Group developed two sets of recommendations—one for the Public Health Service and one for business and industry organizations—and a series of implementation strategies for business and industry.

Recommendations for the Public Health Service:

1. The Federal government, through the PHS should become a strong advocate for the value of health promotion in the workplace and should use its national resources to develop an atomosphere conducive to implementing these programs.
2. The PHS should serve as a central resource for information about worksite health programs and materials, both within the government and in the private sector. To the extent possible and desired by the individual groups, the information should be made available to business and labor organizations so that each group can service its own membership.
3. The DHHS and PHS should make a concerted effort to fund much-needed research and evaluation studies of worksite health promotion programs, since such studies are very costly and often require many years to complete.
4. The PHS should make every effort to work cooperatively with national business and labor organizations—and they, in turn, are encouraged to work with the government—to maximize the potential of both sectors to contribute to achieving the Objectives for the Nation.
5. The PHS should, when reviewing and revising the 1990 Objectives, consider adding an objective that encourages businesses to provide high blood pressure screening, follow-up, and control on referral for all employees.

Recommendations for business and industry organizations:

1. All national organizations with businesses, labor unions, or business decision-makers as members should review the 1990 health promotion Objectives for the Nation, paying special attention to those focusing on the worksite, and identify those that can be supported actively by the organization. Further, these national organizations should use all their policy-making channels to encourage their members to support achievement of these objectives by 1990.
2. To the extent useful and feasible, national business and labor organizations, government groups, and voluntary organizations should develop a "network" for the purpose of staying informed about all their efforts in support of the worksite health promotion Objectives for the Nation.
3. National business organizations should use surveys or other mechanisms to determine the level to which their membership is involved in activities that support the health promotion Objectives for the Nation. Where it is found that members are not supportive of a particular objective, an attempt should be made to determine why, and if appropriate, to provide information or tools to assist them in becoming involved.
4. Business and labor organizations should use mechanisms appropriate to their own structures to encourage their members to evaluate or assess the impact of health promotion programs on their businesses, should share what is known about effectiveness and efficiency, and to the extent possible, support or cooperate with businesses and groups attempting to conduct evaluation activities.
5. Those business organizations with small businesses as members should give consideration to mounting special efforts to encourage and assist members to offer health promotion information and programming to their employees in support of the Objectives for the Nation.

In addition to the above recommendations, the work group generated a list of suggestions to stimulate business organizations to think about how they might support the 1990 Objectives for the Nation. The list included suggested policy actions, information dissemination actions, and educational efforts.

Suggested policy actions:

1. Develop a policy or official statement supporting the concept that it is appropriate and important for the national organization and its individual members to become actively involved in achieving the 1990 worksite health promotion objectives.
2. Revise, if necessary, the organization's mission statement to incorporate the idea that the organization has a responsibility to implement policies and programs that enhance the health of individuals.
3. Examine the organization's benefits package and, if possible, redesign it to include payment of or reimbursement for health promotion services. Member organizations should be encouraged to do the same.
4. Establish a task force to help develop organizational policies that support the 1990 Objectives for the Nation.
5. Use the organization's legislative channels to promote the Objectives by, for example, calling for increased excise taxes on tobacco and alcohol, and by initiating or supporting efforts to give tax credits to companies offering worksite health promotion programs.
6. Designate knowledgeable spokespersons who can speak aboout the Objectives at Congressional hearings and other forums.
7. Make organizations' health promotion programs available to all levels of employees (except where a specific high-risk group is being targeted), and encourage member organizations to do the same.
8. Examine all organizational policies and practices and make a concerted effort to change any that do not support good health.
9. Establish, implement, and enforce a smoking policy for the organization.
10. Urge member organizations to encourage their companies to implement smoking policies. Include sample policies, case studies of successful programs, and information on the cost to businesses of employee smoking. Also, encourage companies to provide nutritious foods in cafeterias and vending machines.
11. Make a policy level commitment to educate health professional employees about health (as opposed to illness) and about the worksite health promotion Objectives for the Nation.

Suggested informational programming:

1. Send copies of the worksite health promotion Objectives for the Nation to all member organizations, with specific suggestions as to how they can participate in this national effort to keep employees healthy.
2. Use available communication channels to provide members with ideas, tools, and materials that will help them contribute to achieving the Objectives. Consider such techniques as dividing the year into six themes, corresponding to the categories of the objectives, and gearing campaigns accordingly. Also, prepare case studies of successful worksite health promotion programs and publicize their availablity to members. Include how-to information so others can replicate the successes.
3. Give members the opportunity to describe or demonstrate successful programs at meetings and exhibitions.
4. Encourage members to become involved in corporate health fairs that focus on the health promotion Objectives.
5. Develop slide/tape speakers' kits that focus on the health promotion Objectives for use by members for their own employees and for community groups.
6. Devote a special issue of the organization's journal or other publication to health promotion and the worksite Objectives.
7. Increase organizational efforts to serve as an information source about employee health promotion. Provide information on what members are doing in this area and begin to establish an organizational atmosphere that is supportive of personal health: nutrition and calorie information on cafeteria and vending machine foods; scales for self-monitoring of weight; bicycle racks and showers; healthful lunches and dinners at meetings; and enforcement of smoking policies at meetings, etc.
9. Cooperate with other national business, labor, or voluntary groups to maximize efforts in support of the 1990 Worksite Health Promotion Objectives.
10. Use the Objectives for the Nation to develop an appropriate "certification program" for members.
11. Establish awards or leadership categories for members who contribute to achieving the Objectives, making a special effort to recognize small business members.
12. Urge local constituency groups to develop programs aimed at encouraging implementation of the worksite Objectives.
13. Sponsor or participate in national campaigns that support the 1990 Objectives.
14. Include health promotion events (fun runs, health bars, stretch breaks, etc.) in organization meetings.

Suggested educational programming:

1. Offer workshops and short courses on how to plan and develop successful health promotion programs and of the special skills needed to implement programs in a business.

2. Integrate information about the value and importance of personal health into all educational offerings of the organization, not just those that focus on the Objectives.
3. Develop and make available to members a list of proven speakers and/or consultants who could provide technical assistance, talk to employee groups, or meet with the corporate health committee to advise them on how to integrate health promotion into the workplace.
4. Hold "movers and shakers" retreats regionally, inviting corporate chief executive officers and one or two other key decision-makers from each company to discuss the benefits of integrating health promotion into business programming.
5. Develop a "road show" that focuses on the worksite Objectives and take it to local or regional constituency groups around the country.

VOLUNTARY ORGANIZATIONS

The voluntary organizations work group consisted of representatives from 11 voluntary agencies—two specific health groups, one health coordinating council, two special purpose organizations interested in fitness and safety, and six multipurpose agencies that serve either minorites or particular age groups.

The group discussed a number of key issues affecting the participation of voluntary organizations in health promotion activities. The most important issue addressed was that of territoriality, a protective stance that promotes competition among organizations and detracts from efforts to make meaningful contributions to health promotion. There was consensus on the need for greater cooperation among voluntary organizations.

Other priority issues identified include the need for behavioral research on "what works" in health promotion, the need for culturally relevant programs addressing the needs of minorities and special population groups, and the need to develop mechanisms for greater cooperation in planning and action.

The participants generated a list of actions organizations might undertake in the area of health promotion and then each member of the group made specific suggestions as to what they might do as a follow-up to the conference. Commitments ranged from placing articles in newsletters and magazines and educating other staff members about the 1990 Objectives for the Nation, to presenting the objectives to the board of the Independent Sector, which represents 785 private and philanthropic groups.

To address the issues discussed, the voluntary organizations work group prepared recommendations for action by the Public Health Service and by voluntary organizations.

Recommendation to the Public Health Service:

1. The Federal government should provide financial and technical support for private, nonprofit minority groups to develop initiatives aimed at assuring equal access of minorities to health promotion programs and services.

Recommendations to PHS and voluntary organizations:

1. Federal lead agencies and other groups should facilitate the integration of information on the objectives and health promotion topics into ongoing programs, by producing and distributing sample releases or "clip sheets" on the Objectives and health promotion topics; compilations of the policies or other voluntary organizations on such issues as smoking and seat belt use; and, information about successful programs.
2. The PHS should recognize and acknowledge its private sector counterparts and explore the possibility of a full partnership with them in efforts to achieve the objectives.
3. The PHS and voluntary groups should explore a means of establishing health promotion as a priority for such funding sources as the United Way.
4. The PHS and voluntary groups should cooperate to establish mechanisms to enhance the exchange of information and increase interorganizational contact and activity. Cited examples of such mechanisms are: Federal lead agencies convening regular meetings of groups with shared interests, as in the Healthy Mothers, Healthy Babies project; frequent and informal exchange of information among voluntary organizations' staff members; interagency agreements among voluntary organizations to cooperate in specific health promotion undertakings.
5. Meeting participants should participate in establishing a means for obtaining accurate and frequent media coverage for health promotion. Also, voluntary organizations should use their influence to identify and react to inappropriate or "anti-health" media images, advertisements, and programs.
6. Public and private funding sources should encourage efforts to improve health promotion initiatives by funding basic and applied bio-psychosocial research aimed at providing a better understanding of individual, family, community, and societal behavior.
7. Every opportunity should be taken to educate health professionals about health promotion programs and services and about the role that voluntary organizations can play in the achievement of the 1990 Objectives.

Recommendations for voluntary organizations:

1. Voluntary organizations should monitor Federal regulations and legislation for its potential impact on the health promotion objectives and should alert their Washington representatives about any special interests in health promotion.
2. To improve the flow and exchange of information on what is being done in health promotion, voluntary organizations should develop a matrix of organization activity with an estimate of the degree of involvement.
3. Voluntary organizations should give special attention to providing funds, technical assistance and programs for high risk groups, especially minorities, children and youth, and the elderly.
4. Minority organizations should offer technical assistance to providers of health promotion services on how best to reach the populations they serve.
5. Voluntary organizations should maintain data on the effectiveness and success of their programs, both to improve their "saleability" within the organization and to identify the most successful programs.
6. To help identify and stimulate interest in sound program ideas, voluntary organizations should give special recognition to the best programs. They should also submit applications to the Secretary's Community Health Promotion Awards Program.
7. Work group participants should educate their boards and other staff members about the health promotion Objectives for the Nation and suggest ways their organizations can assist in achieving them.

SCHOOLS

The schools work group was made up of 10 members of major professional education associations representing school administrators, teachers, and others. It was not intended to represent all segments of the education community, but it did form a good cross section.

The group quickly agreed schools could best contribute to the achievement of the 1990 health promotion Objectives for the Nation by offering quality comprehensive school health programs. The work group then turned to a discussion of obstacles to achieving the objectives.

Major barriers identified include the need for more coordinated support for comprehensive school health programs by education organizations and Federal agencies; the failure of many communities to include school health education as a basic component of education; and the need for better training of teachers and administrators.

Work group participants recognized in the 1990 Objectives an opportunity to increase and improve health programs in schools across the country and to integrate education and health resources to improve the health of all Americans. To this end, the group generated one set of recommendations for consideration by Federal agencies and one set for consideration by professional education associations. It was felt, however, that implementation of most of the recommendations would be enhanced by collaboration between relevant Federal agencies and associations.

Recommendations to Federal agencies:

1. The Department of Education should reestablish the Office of Comprehensive School Health to serve as an important focal point and mechanism for coordinating efforts to improve the health of Americans through the Nation's schools.

   Appropriately experienced staff and sufficient operational support should be provided to enable this office to coordinate numerous categorical efforts currently conducted by the Department of Education to improve school health education, services, and environments. In addition, staff of this reestablished Comprehensive School Health Office should represent the Department of Education in collaborative school health promotion efforts supported by other relevant Federal agencies (e.g., the National Institutes of Health, Centers for Disease Control, National Highway Traffic Safety Administration, Bureau of Maternal and Child Health, Office of Disease Prevention and Health Promotion, etc.) and by relevant health and education organizations in the private sector (see the list in item 5 of the schools work group's recommendations to professional education associations).
2. The Office of Disease Prevention and Health Promotion should orchestrate a campaign to describe the role of the Nation's schools in improving the health of Americans.

   A package of awareness materials (perhaps including press releases, posters/charts, slide/tape programs, and journal articles) that describe the Objectives for the Nation and the role of the schools in attaining them should be prepared and distributed in collaboration with professional education associations (see item 1 of the recommendations to professional education associations).
3. Given the markedly altered patterns of morbidity and mortality in the United States, the increasing influence of individual behavioral and collective social choices on such patterns, the need to curtail medical care and entitlement costs, and the potential for schools to efficiently enable our people to make informed and wise decisions, the President should convene a Commission on Comprehensive School Health Education.

   Such a commission might analyze and recommend means to efficiently increase and improve health education programs in the Nation's schools and to assure that such programs maximally contribute to attaining the health Objectives for the Nation.

4. Relevant Federal agencies should maintain and increase support for research that would increase the capacities of schools to attain the Objectives for the Nation.

   The Department of Education, in particular, should increase its support for school health education research and its involvement with school health education research supported by other Federal agencies (see first recommendation above). Also, relevant Federal agencies should solicit advice from education professionals in planning and conducting school-based research and should disseminate the results promptly through publications for education professionals as well as for health professionals. In addition, the Department of Education should collaborate with the National Institute of Child Health and Human Development to examine the capacity for school-based interventions to improve cognitive performance by influencing specific student health behaviors (e.g., diet, exercise, sleep, coping with stress, etc.).

5. The National Health Information Clearinghouse (NHIC) of the Department of Health and Human Services and the Educational Resources Information Center of the Department of Education (ERIC), collaboratively should compile, continuously update, and advertise the availability of a systematic collection of information that could enable and motivate interested organizations and individuals to increase and improve health education programs in schools.

6. The next Federal Interagency Meeting on Health Promotion through the Schools should include representatives from interested private sector health, health education, and education organizations and should focus on the development of means by which relevant Federal and private sector organizations might collaborate to attain specific Objectives for the Nation.

7. Education professionals with appropriate experience and responsibilities should be invited to participate in the 1985 deliberations to review the Objectives for the Nation in order to ensure that the proper role and potential of the Nation's schools are analyzed and reflected.

8. Relevant Federal agencies should encourage collaborative efforts by State departments of education and State departments of health to increase and improve comprehensive school health programs and to attain the Objectives for the Nation.

   Federal agencies might encourage such collaboration through formal grant, contract, and cooperative agreement requirements that would require such cooperation, as well as through informal facilitation and encouragement. Whenever schools are the targets for health programs, State departments of education should be a primary contact point rather than State health agencies.

9. Categorical school health interventions (e.g., drug abuse, smoking, or cardiovascular diseases) developed through Federal agencies should be designed to be integrated with the broader comprehensive school health curriculum and school health services.

10. The National Diffusion Network of the Department of Education, which is responsible for validating and disseminating exemplary school curriculum projects of proven effectiveness, should designate school health education programs among their priority categories for at least the next five years.

11. Relevant Federal agencies should provide support for the development of instruments with which schools could evaluate the quality of their health programs.

    Guidelines for comprehensive school health programs, guidelines for healthful school physical education programs, guidelines for healthful school food service programs, standards of school nursing practice, and standards for healthful school environments might be developed into checklists or other evaluation instruments to help schools analyze the quality of their total school health programs.

12. Relevant Federal agencies should collaborate to stimulate competition and provide awards and visibility for exemplary school health programs. Such programs could be selected on the basis of the guidelines and standards described in the previous recommendation. Selected schools could serve as model sites for interested education and health professionals to visit in order to learn how to improve health programs of schools in their communities.

13. Relevant Federal agencies should sponsor a meeting for prominent city and State school superintendents to provide the opportunity for them to experience an examplary school health program, to participate in creative health education and health service activities, to practice healthful behaviors, and to appreciate a healthful school environment.

    Such a meeting could be modeled after Oregon's "Seaside Conference," with similar conferences held in other States. At such a meeting, prominent superintendents could be informed about the role of the school in attaining the Objectives for the Nation.

14. Relevant Federal agencies should provide support for the development of instruments with which schools could assess essential health knowledge and practices of their students.

At minimum, a high school health knowledge and practices survey instrument should be constructed to address the major content areas of comprehensive health education and to address the Objectives for the Nation that can be directly or indirectly attained by schools.

15. Relevant Federal agencies should provide support to standardize student health records, and to establish an efficient system of regular school health record-keeping and record transfer.
16. The Office of Disease Prevention and Health Promotion and other relevant Federal agencies should provide support for professional education associations to address these recommendations and those that follow.

Recommendations to Professional Education Associations:

1. Professional education associations should initiate campaigns to inform their memberships about the role of schools in achieving the Objectives for the Nation.

   These associations include the American Association of Colleges of Teacher Education; American Association of School Administrators; American Federation of Teachers; Association for Supervision & Curriculum Development; Council of Chief State School Officers; Education Commission of the States; National Association of Elementary School Principals; National Association of School Boards; National Association of Secondary School Principals; National Association of State Boards of Education; National Education Association; National Parents and Teachers Assocation; and others.

   Leaders of professional health education associations (including American School Health Association; Association for the Advancement of Health Education of the American Alliance for Health, Physical Education, Recreation & Dance; the American Public Health Association, School Health Education and Services Section; Society for Public Health Education; and others), other professional health associations, and relevant Federal agencies (including the Office of Disease Prevention and Health Promotion, the Centers for Disease Control's Center for Health Promotion and Education; and others) might help to provide appropriate information about factors that influence health in the U.S. today, the potential for schools to improve health, and the relevance of the Objectives for the Nation initiative. Such information could be disseminated through articles in education journals and newsletters, and through presentations at local, state, and national education association meetings. Various education associations might present such information to their constituents simultaneously during a targeted month.

   Similarly, leaders of professional education associations should be invited to prepare articles and presentations for professional health education journals and health education association meetings, respectively, to describe current barriers to increasing and improving school health education programs and how such barriers might be overcome.
2. A working meeting of prominent educational administrators (including major city and State school superintendents) should be convened to identify and analyze current barriers to increasing and improving health education programs in schools, to suggest concrete means by which such barriers might be reduced, and to chart directions for the future.

   Support for such a conference might be provided by a concerned philanthropic organization, by a relevant Federal agency, or by both.
3. Although many school health educators are active in health education and health professional associations, they should increase their membership and participation in relevant professional education associations.

   Through these organizations, school health educators migh analyze issues of importance to education professionals and might represent the interests and activities of various agencies and associations involved in improving child health through school-based programs.
4. Professional education assocations should review their school health program activities and resolutions.

   Each association might conduct an analysis of the appropriate role of the organization in improving the health of students. Also, resolutions to improve the quality of school health education, services, and environments might be adopted, updated, or reconfirmed. In addition, each professional education association, health education association, and health association might compile a list of the association's school-based efforts to improve health, with the name and address of a person to contact for more information. A list of Federally supported school-based efforts to improve health already has been compiled. The list of private sector school-based efforts might be facilitated and shared through the National School Health Education Coalition.
5. Professional education associations should be encouraged to join the National School Health Education Coalition.

   This coalition currently serves as a mechanism to share and coordinate information about school health education initiatives launched by more than 40 participating private sector organizations, including voluntary health organizations (e.g., American Lung Assocaiation, American Red

Cross, and American Heart Association); professional health education associations (listed in item 1); professional health associations (e.g., American Medical Association and American College of Preventive Medicine); and education associations (e.g., American Association of School Administrators and Association for Supervision and Curriculum Development).

6. Education and health researchers and education and health research organizations should examine the current status of school health programs across the Nation.

   Such examination at least should include analyses of enforced teacher training requirements, actual resource allocation, and actual classroom time provided for school health education and physical education. In addition, the quality of health services and the health environments provided by the Nation's schools should be investigated. The publication *School Health in America* provides important and meaningful information about legislative and administrative mandates for school health education, services, and environments, although it does not describe the actual implementation of such education, services, and environments (American School Health Association, 1981). A national probability sample of schools would provide useful information about the actual nature of school health programs in the United States; however, a national probability sample of schools within each State would provide more useful comparative information.

7. Education associations should collaborate with health education associations and health associations at national, State, and local levels to foster community, in-kind, and financial support to increase and improve school health programs.

   National, State, and local coalitions could assist schools in securing support from health and education block grants and from health and education philanthropic sources, for the purpose of implementing model school health curricula, providing in-service training, procuring materials, etc.

8. Education associations should support and facilitate worksite health promotion programs for their association's employees.

   Although long-term health outcomes of such programs have not been investigated adequately, health promotion programs in other business and industry worksites have increased employee productivity and morale, while reducing employee absences and reported stress. Recently reported research indicates that health promotion programs for school employees not only are effective but also are favorably received. Such programs also have the propensity to increase awareness about health—and factors that influence it—among both school faculty and students.

9. Leaders of education associations, health education associations, and health associations should meet to discuss collaborative school-based strategies to improve the health of American children and youth.

   To initiate such discussions, leaders of relevant health education associations, health associations and Federal agencies might present the Recommendations of the Schools Work Group for discussion at the next quarterly meeting of the Forum of Educational Leaders (which the president, president-elect, and executive directors of organizations listed in item 1 usually attend). In addition, leaders of professional education associations and associations participating in the National School Health Education Coalition could be invited to attend the next Federal Interagency Meeting on Health Promotion Through the Schools to discuss these recommendations and potential collaborative efforts to attain the Objectives for the Nation.

10. Education associations, health associations and relevant Federal agencies should collaborate to standardize student health records and to establish an efficient system of regular school health recordkeeping and record transfer.

    Available computer technology can facilitate these processes.

11. Education associations should collaborate with health education associations and relevant health associations to generate appropriate legislative and administrative requirements for school health education programs and for appropriate teacher preparation in health education.

    These associations should collaborate with State and local education and health departments to ensure enforcement of legislative requirements and administrative standards for appropriate preparation of teachers and school nurses.

12. Education associations should support and facilitate pre-service and in-service training about school health education, services, and environments for educational administrators.

    The National Academy for School Executives, sponsored by the American Association of School Administrators, might offer a course on school health programs that could include current information on such subjects as the role of the schools in the Objectives for the Nation initiative, school traffic safety programs, programs to minimize student alcohol and drug abuse, athletic injury prevention and liabilty, controlling asbestos in the school environment, modifying the school environment to improve student and faculty morale, and preventing and controlling lice infestations.

13. Education associations should examine local school physical education programs to ensure they emphasize physical fitness.

14. Education associations should examine local school

health service programs to ensure each pupil is provided with adequate health care, health screening, and health referrals.

15. The American Alliance for Health, Physical Education, Recreation, and Dance should convene a task force to examine relevant issues and delineate specific means by which school health educators and school physical educators might collaborate to ensure that school health and physical education programs synergistically facilitate the development of health-related fitness and the life-long enjoyment of exercise.
16. The American School Health Association should convene a task force to examine relevant issues and delineate specific means by which school health educators, school nurses and physicians, school counselors, school physical educators, and school food service personnel might collaborate to ensure the development and maintenance of an optimally effective school health program.

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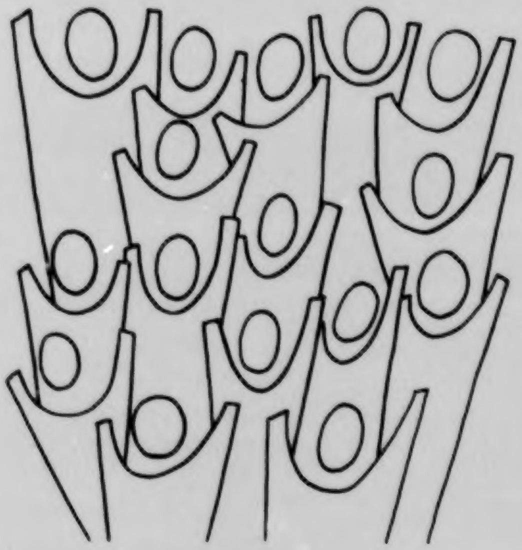

Section 4: Background Papers

Health Promotion in Health Care Settings

I. INTRODUCTION

The past century has marked a radical transformation of illness patterns which has dramatically changed the face of health throughout the United States. Early perinatal mortality and childhood and adult mortality related to infectious disease have given way to a new set of preventable causes of premature death and disability: chronic diseases—such as heart attack, stroke, and certain adult cancers and accidental death related to alcohol. It is clear that future significant decreases in death rates from such problems will only come after advancements have been made in their prevention. Given the strong relationship of lifestyle to our nation's new health problems, significant improvements in health status will depend upon a major increase in health promotion.

The many issues surrounding the area of prevention, including the role of health promotion, have been discussed at length in such notable publications as the Surgeon General's recent report entitled *Healthy People* (1). This report summarized the remarkable gains in the health of the American public over the past century and targeted 15 priority areas in which further advances can and should be made over the next 10 years. Such publications have had a profound influence in helping to catalyze efforts to translate a general awareness of the need for prevention into clear, objective goals. The culmination of such efforts is represented in the U.S. Department of Health and Human Services' *Objectives for the Nation* (2), which evaluated the 15 priority areas targeted in *Healthy People,* described possible prevention/promotion measures, and set specific objectives for the year 1990. The task of meeting these objectives is monumental, but the efforts and commitment displayed by the national health organizations attending the present conference can make a significant contribution to that end. This report presents some observations on the scope of current health education/promotion efforts in the primary care sector of the nation, the major unsolved issues, and some future directions for reshaping health education/promotion efforts.

To avoid confusion concerning the usage of the term *health promotion,* the following definition is used in this paper:

> In contrast to treatment-oriented approaches to health care, health promotion "seeks to facilitate community and individual measures which can foster the development of lifestyles to maintain and enhance the state of health and well-being" (3). The particular domains of health promotion include personal habits in nutrition, exercise, smoking, and alcohol use and habits leading to poor stress management. Blood pressure control has often been included in health promotion activities as well. Health promotion also includes

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organizing activities that are needed for the promotion to occur. Environmental and regulatory changes that facilitate health habit change or maintenance are often the consequences of health promotion and should be seen as a secondary goal in a comprehensive program. Health promotion, as defined, complements the ordinary usage of the term *health education*. However, health education could be synonymous with health promotion were its definition broadened to include skills training, organization, regulation, and environmental change components.

A. The Role Health Care Settings and Health Professional Organizations Have Played in Health and Health Promotion

In recent years, the traditional perception of hospitals and other health care facilities as the major focus of the community's health-related activities has been extended to include the realm of prevention. Many health care settings have shared this perception, as have many of the major health professional organizations, which have, since their beginning included various aspects of health education/promotion as part of their professional role. This trend has gained impetus in the past decade and makes sense both because of the substantial credibility such organizations have among the public and because health care settings typically have the facilities and personnel needed for successful health education/promotion efforts.

Many factors have increased the health professional community's interest in health education/promotion. First, the health professional's primary role is disease control, and prevention is surely an important part of such control. Second, the costs of treating chronic disease have grown significantly, and prevention has become, at least in principle, an increasingly attractive method for potentially curbing those costs. Third, increases in the degree of consumer knowledge and sophistication concerning illness and health have spurred increased expectations for preventive programs, along with more reasonable health care costs. Fourth, increased interest in health promotion by other sectors of the nation (e.g., industry) has sparked interest among health professionals and health care settings in developing and marketing health promotion programs. Fifth, as a growing number of individual health practitioners have reaped benefits through participation in their own health improvement regimens, many have subsequently experienced a heightened enthusiasm for health promotion in general. Sixth, as more and more professional organizations and health care settings jump on the health education/promotion bandwagon, concerns over being "left out" have increased interest.

While the present flurry of interest in health education/promotion is commendable, its relatively rapid expansion has resulted in some attendant problems and issues. The purpose of this paper is to highlight some of these problems and issues, as a prelude to the meeting entitled "Prospects for a Healthier America: Achieving the Nation's Health Objectives." An Appendix is included that identifies selected resources for use by the reader who wishes to pursue health promotion topics more thoroughly.

II. CURRENT ACTIVITIES

Because of the difficulty of obtaining access to the burgeoning body of information concerning health promotion activities, this paper focuses on some patterns and examples of current health education/promotion activities undertaken by health care settings and by health professionals at the national, state, regional/community, and local levels. Such patterns and examples will be used as indications of the possible directions health education/promotion efforts might take.

A. On The National Level

(1) *Organizations for Health Care Settings*
The extent of organizational interest in health promotion varies widely, from "lip service" to more meaningful commitment. Methods for incorporating health education/promotion into the organization's schema have typically taken the following forms:

(a) An increasing number of national organizations have established written policies in support of the 1990 health promotion objectives (4). For instance, the American Hospital Association's (AHA) House of Delegates, at its 1979 meeting, adopted a resolution establishing the responsibility of hospitals to engage in health promotion activities. This type of commitment is a useful first step, but it must be accompanied by a cogent plan for translating the policy into specific goals and actions.

(b) A designated section for health education/promotion has at times been created as part of an association's governing body. For instance, the American College Health Association has three delegates from the health education section on its Council of Delegates. Similarly, the AHA's Center for Health Promotion is active in a variety of health promotion activities.

(c) Regular journals, newsletters, and publications, focusing to a greater or lesser extent on issues and new initiatives in the health education/promotion field, have been created. For example, the AHA publishes a bimonthly newsletter entitled *Promotion Health*, which is devoted entirely to health promotion issues in hospital settings.

(d) A number of organizations utilize annual meetings or conferences to assemble a constituency to discuss relevant concerns and issues in the field. The amount of time allotted for discussion varies enormously, and the lack of post-convention evaluation makes it difficult to gauge the actual impact of such meetings on subsequent member activities.

Some organizations have formed committees with other health organizations to help stimulate integration of health services and networking among such agencies. The advisory committee comprised of the National Association of Community Health Centers (NACHC), the AHA, Red Cross, and other agencies offers a direct link to local affiliate organizations interested in health education/promotion activities and aids in the local/regional networking that may be crucial to the enhancement and increased efficacy of health education/promotion efforts.

In addition, some organizations have developed an impressive array of educational meetings and guides that run the gamut from pamphlets and guides to instructional program packages and media-based presentations. Furthermore, some organizations offer periodic workshops, lectures, and classes on health education/promotion, at times assigning Continuing Medical Education credit for some of these activities (e.g., Association For Hospital Medical Education [AHME]). However, it is often unclear how many materials are actually disseminated and used by state, regional and local agencies, and there seems to be little systematic evaluation of materials and services offered by national organizations. The area of evaluation is discussed later in this paper.

(2) *Health Professional Organizations*

Health professional organizations share with primary care setting organizations many of the same organizational methods for promoting discussion and enhancement of health education/promotion activities. Some, like the American Association of Family Physicians, have established written policies in support of health education/promotion. Other have designated sections of the organization for health education/promotion.

Many professional organizations have regular journals, newsletters and publications with varying emphases on health promotion, and some organize annual conferences to discuss important and timely health issues. Some of these conferences have utilized specific task forces, focused on designated aspects of the health education/promotion field.

Many health professional organizations have also prepared a variety of health education materials for dissemination to their affiliates and to the public. For instance, the American Academy of Pediatrics provides educational materials to both its members and the public on such topics as accident prevention and substance abuse. The American Osteopathic Association produces radio spots for the public and also provides speakers for local groups and organizations. Here again, however, evaluation of the material and the best modes of distribution are areas that have been only minimally explored.

While there have been some efforts to form networks among organizations and disciplines (e.g., the Society of Behavioral Medicine includes members from a number of professional organizations), formalized inroads remain relatively limited. An example of such interfacing includes the current physician advisory panels of the American Heart Association, the American Lung Association, and the American Cancer Society.

An important area of health education/promotion involves the training of health professionals in areas specifically related to health promotion. Some national professional organizations have addressed this problem. At the recent National Working Conference on Education and Training in Psychology, psychologists formulated a working plan for future educaiton and training of health psychologists. Similarly, at the American College of Cardiology's recent conference in Bethesda, a meaningful plan of action for the development of an efficacious education/training program for coronary disease prevention was presented. Other organizations have increased their offerings of workshops amd seminars on health promotion programs. Despite such efforts, however, a systematic, comprehensive program of professional training in effective health promotion methods remains the exception among health professional organizations.

Given the available literature and the above discussion, the following conclusions may be drawn:

(a) Important strides have been made in the area of health education/promotion over the past several years, but professional organizations need to commit substantially more effort and resources to this area if any significant changes are to be seen over the next decade.

(b) While many health professional and primary care organizations have begun to commit specific organizational resources to this area (in the form of task forces, newsletters, educational materials and the like), the lack of systematic evaluation of these efforts makes it difficult to assess their impact.

(c) An impressive array of health education materials and programs has been developed by national organizations, but it is unclear whether the most effective means of distributing and promoting such materials to affiliate members and to the public have been explored.

(d) Although an increasing number of professional organizations have identified professional training in health promotion as an important area of impact, to date relatively few well-orchestrated approaches to health promotional training have been established.

(e) While national organizations have begun more frequent communication and collaboration with one another concerning health education/promotion efforts, such communication—as well as multidisciplinary/interorganizational action in this area—remains at a surprisingly low level.

(f) The most effective role of national organizations in promoting health across the nation remains at present ambiguous and uncertain.

B. On the State Level

(1) *State Health Departments*

The institution bearing the legal responsibility for state health protection is the State Health Department. While in the past this agency's focus has been largely upon the prevention of environmentally related and communicable diseases, in recent years some state health departments have also assumed increasing responsibility for prevention in other health areas (5). In fact, state health agencies in all 50 states report provision of health education in Fiscal Year (FY) 1980 (6). However, the breadth and types of state-wide programs offered vary considerably, and states with a more decentralized organization often report greater activity on the local versus state level (7).

Several states have initiated impressive efforts in the area of health promotion. For example, Rhode Island and Pennsylvania have developed multidimensional heart disease prevention programs; Michigan is initiating programs in health education, risk reduction, and physical fitness; Kansas is developing health risk appraisal, referral, and follow-up programs; Arizona has a relatively comprehensive program of health education and promotion, health consultation and referrals, and health educator training; Massachusetts has published since 1976 a systematic strategy for implementing a successful health promotion effort; and Florida has awarded a series of small grants to aid local efforts to promote preventive and educational health programs.

Significant barriers to health education/promotion still remain despite these laudable efforts, and the 1978 Congressional authorization directing the Centers for Disease Control's Bureau of Health Education to award a series of grants to increase preventive health efforts by such agencies. These difficulties include insufficient budgets, restrictive civil service regulations, fragmented, uncoordinated health education initiatives on state and local levels, and uninspired leadership. In an attempt to address some of the problems created by overreliance on Federally funded categorical programs (6), Congress established the Health Education Risk Reduction (HERR) Grant Program in 1979. Under this program, the state has responsibility for coordinating grant activities on state and local levels as well as for establishing effective networks among the state and local health departments, other relevant health agencies, professional organizations, and clinical providers (5). In addition, the state health department is responsible for coordinating the development and implementation of appropriate assessment and evaluation techniques. To aid this effort the HERR Grant Program suggests standards of effectiveness (8). Recent assessments indicate that approximately 95% of states have viable HERR Programs at the state level, with approximately 60% of the original 200 projects still in existence (Korn, personal communication, 1984). How successful programs like the HERR Grants Program will be in coordinating future health education/promotion activities remains to be seen. Clearly, however, HERR programs vary substantially from state to state (Korn, personal communication, 1984).

(2) *Academic Medical Centers*

Several sources have considered the potential utility of a coordinated statewide health promotion effort headed by the academic medical community (particularly the state university system (9). An example of such a statewide effort is found in New Jersey. There, the Office of Consumer Health Education (OCHE) for the College of Medicine and Dentistry of New Jersey has worked to educate the public about health risks and has offered assistance to organizations and communities in developing, implementing, and evaluating health promotional programs (10). The OCHE effort underscores the potential promise such university systems hold for significantly influencing statewide health education/promotion.

(3) *State Library/Health Promotion Network Project*

Although not properly considered a primary health care setting—and thus receiving only brief mention here—state library systems, much like state university systems, offer a potentially rich network for organizing and disseminating health information throughout a state. Several innovative programs have been established, some housed in area health education centers (AHECs). The AHEC system had its beginnings in the comprehensive Health Manpower Training Act of 1971. Area Health Education Centers are affiliated with university health science centers, and their purpose is to enhance the quality of health training, to help solve problems of geographic distribution of health manpower, to encourage primary care training, and to increase the efficacy of educational activities in their areas (11, 12).

For example, the North Carolina AHEC Library has a central library and 15 AHEC Library/Learning Research Centers that serve physicians, nurses, and other health professionals throughout the state. The system also provides assistance to other institutions such as hospitals, pharmacies, and schools. North Dakota has a similar AHEC Library system. In contrast, the University of New Mexico Medical Center Library has focused its efforts on the public as well as on health professionals.

Significantly, one of the major criticisms of library/health promotion programs is their lack of cooperative relationships with public and private health agencies (13). The reasons for this are unclear, but there have been allusions to lack of time on the part of librarians and to "turf" protection by public and private health agencies and health professionals (13). This latter problem, which has surfaced in virtually every level of the health education/promotion movement in general, will be discussed in the Issues section.

(4) *Conclusions Concerning State Level Efforts*

While some innovative statewide health education/promotion programs have been recently initiated, such programs remain in the minority across the nation as a whole. Problems facing statewide efforts include funding constraints, limits on staff time, difficulties in coordinating the huge number of health agencies and organizations comprising the health arm of the state, and the problems intrinsic in presenting an often heterogeneous state population with a homogeneous package of health promotion programs and activities. Clearly, individual community health needs will differ, requiring a more tailored approach to health education/promotion than many state level efforts can give.

C. Regional/Community Level

For the purpose of this paper, regional/community efforts in health education/promotion are defined as those coordinated and integrated health promotion strategies designed to catalyze new activities and coordinate existing ones for a community or region. Such efforts can be contrasted with local efforts, which typically involve only one institution or agency.

(1) *Research and Demonstration Programs Originating in Medical/University Settings*

The following three programs represent state-of-the-art strategies for community-wide cardiovascular disease risk reduction.

(a) *Stanford Heart Disease Prevention Program (SHDPP).* The SHDPP represents a 16-year research effort by a multidisciplinary team of medical and social scientists and education professionals to develop methods to reduce cardiovascular disease risk in communities throughout the northern portion of California. These are research programs designed to develop cost-effective methods as potential models for adoption elsewhere. The current Five City Project (FCP) is a direct outgrowth of the previously completed Three Community Study (TCS) conducted from 1971 to 1977 (14). Results from the TCS demonstrated the efficacy of an educational campaign carried out largely thorough mass media (in one town)—mass media supplemented by face-to-face intensive instruction (in a second town) in reducing cardiovascular risk community-wide. A third town served as a reference group.

The expanded FCP seeks to modify the knowledge and skills of individuals to reduce and decrease morbidity and mortality. The project emphasizes the maintenance of lifestyle changes and provides for the gradual transfer of much of the responsibility for the health promotion activities to community organizations. To facilitate this, a consortium of community organizations, university staff, the local health department, AHEC, hospitals, voluntary health agencies, and school districts has been formed to pool resources, share information, diminish territorial conflict, and link the community to the university-based team.

While many of the health programs have been developed and evaluated by Stanford personnel, they have been delivered in community settings by health care organizations and agencies. Consortium staff include health educators, psychologists, nurses, health administrators, and physicians.

Results are being evaluated through multilevel epidemiological surveillance and physiological, behavioral, and educational assessment techniques, and the findings will enable the research team to advise other communities how to design, implement, and evaluate the most efficacious strategies for accomplishing community-wide cardiovascular risk reduction.

(b) *The Minnesota Heart Health Project.* A large and comprehensive research and demonstration program sponsored by the University of Minnesota began in 1980. This project involves three reference communities and three communities that will receive three to seven years of education. The research design includes considerable development of local community resources, with the University unit training personnel and supplying educational materials. As with the Stanford Project, cardiovascular disease prevention is the goal, and all age groups in the community are targeted. Community-based advisory groups—including political leaders and representatives from local health departments, hospitals, voluntary health agencies, and educational institutions—have already been formed so that an important degree of control and direction of activities is already well rooted within the community.

(c) *The Pawtucket Heart Health Project.* This project began in 1980 under the joint sponsorship of Brown University School of Medicine and a major hospital in Pawtucket, Rhode Island. The city of Pawtucket will be the target of an extensive multiple-risk-factor health education program conducted by medical and behavioral scientists and an extensive community organization.

The Standford, Minnesota, and Pawtucket projects are all supported by the National Heart, Lung, and Blood Institute (NHLBI) and they are bound together in a loose confederation designed to insure comparable evaluation methodology. These three projects encompass a wide variety of ethnic groups, regions, and community types and should be of great value to primary care and health professional organizations wishing to design health promotion programs and policies. For instance, the projects will shed light on the development of effective health promotion materials and programs as well as methods of organizing, funding, delivering, and evaluating health promotion programs in community settings. Methods of choosing policies relevant to resource allocation, planning of health facilities, and formulating environmental regulations (such as those concerning smoking) can also be developed from results of these studies.

(2) *Consortia and Other Multi-Institutional Arrangements (MIAs)*

Patient and community health education/promotion activities are often carried out by a single institution, but increasing financial and organizational constraints have led to the formation of multi-institutional arrangements (MIAs), which allow hospitals and other organizations to increase services and resources at a reduced cost. MIAs are especially relevant for health education services, which are often the first victims of economic hardship. Such arrangements include formal affiliations (e.g., a medical school affiliation with a community hospital), shared or cooperative services (i.e., the sharing of one or more clinical or administrative services), corporate ownership (but separate management), and consortia (i.e., a coalition of agencies) (15). The Health Promotion Consortium of Monterey County includes a number of community health agencies (e.g., the local public health department, the Stanford Heart Disease Prevention Program, local chapters of the American Lung Association, and the American Heart Association) and was formed three years ago, when Monterey County was selected as the site for health education as part of the Stanford Five City Project. The Consortium was designed to coordinate regional efforts in the area of cardiovascular risk reduction and represents part of the community "takeover" built into the design. Members have reported that the personal, face-to-face contacts between member agencies have helped to reduce some of the competiveness and tension that often exists among agencies offering similar programs.

Examples of other consortia for health education/promotion include the Community Health Education Council in St. Petersburg, Florida; the Community Health Education Consortium in Spokane, Washington; and the Regional Inservice Education Cosortium in Maine. In addition to sharing personnel and services, the member agencies of consortia also may cooperate in the production of audiovisual teaching aids, programs, and other materials. Most MIAs are still in the early stages of development, and many are struggling to define their role (16). National organizations could help by informing their members of the advantages of such consortia and by supporting efforts of members and local chapters to become involved.

(3) *Health Systems Agencies*

Following the National Health Planning and Resources Development Act of 1974, approximately 200 health systems agencies (HSA) were created to assess area health needs and develop plans for meeting those needs. Prevention was targeted as a priority. Many HSAs have been reported to be working with a variety of organizations to encourage health education/promotion programs (17), but relatively few have represented a specific plan for helping organizations to choose, develop, and implement needed programs (18). Furthermore, a deemphasis on development of preventive services and recent cutbacks in HSA budgets do not bode well for any significant future impact of HSAs on education/promotion (10).

(4) *Health Education Resources Centers*

In some areas health education resource centers have been funded by a variety of private and public agencies to meet the need for health education/health promotion activities in a particular community or region. The Health Education Center in Pittsburg, for example, services a 10-county region in southeastern Pennsylvania and works with approximately 300 organizations in the area (10). The Center's activities include delivery of health classes; workshops and seminars in a variety of settings; health "spots" on local media; and operation of a Tel-Med system, a telephone library of recorded health information tapes designed to provide the public easy access to general information on a variety of illnesses and health problems. The Regional Health Education Promotion Council in Miami, Florida, serves a similar function. Recently this council sponsored a regional conference to promote more adequate networking among local health educators. Some health education resource centers are able to offer innovative and integrated services to a particular region but funding is often a problem. As a result, they make extensive use of volunteers and donations and require a leadership able to "go after" funding sources. As in other efforts to integrate and coordinate health education/promotion, competition and "territoriality" are often significant issues. In addition, formal networking among regional resource centers appears to be limited.

(5) *Regional/Community Library Networks*

Although they service only a part of the state, regional/community library networks nonetheless have the potential for disseminating some kinds of health information. For example, Info-Health in Cleveland, Ohio, offers residents of metropolitan Cleveland counties information on such topics as family planning, drug abuse, and nutrition; Community Health Information Network (CHIN), located in Middlesex County, Massachusetts, serves 55 hospitals and a number of educational institutions in the Boston area; and the Kaiser Health Library serves the Oakland, California, area as well as 13 medical centers spread throughout a large portion of northern California.

(6) *Conclusions Concerning Regional Community Efforts*

While the different regional/community efforts in health education/promotion have varied widely in size, impact, and future solvency, they have several points in common. First, such efforts recognize the potential utility of a more organized, integrated approach to health promotion than is present in efforts launched by individual agencies. Second, Bauer has concluded that community programs can tailor their activities to meet the needs of local constituencies—an element that is missing in the "shotgun" approaches found in most state and national programs (10). It seems clear that more organized and well-evaluated research and demonstration projects are needed to further develop organizational and educational methods for regional health promotion. Research is therefore needed to improve not only the *content* of health education but also its *delivery* and its *persistence*. These refer to the triple challenge of developing curriculum content, reaching a population, and achieving stable funding and institutionalization of health promotion.

D. On the Local Level

(1) *Local Hospitals*

The past 10 years have seen a burgeoning of interest among hospitals in developing health education/promotion programs for their communities. A 1979 survey by the AHA indicated that more than half of the 5,663 responding hospitals reported the existence of such activities (19). Program activities include classes in first-aid, smoking cessation, and stress management, as well as hypertension screening, weight loss programs, pre- and postnatal care couses, and a variety of exercise classes. Many of the more successful programs are found in relatively large teaching hospitals and have four or more full-time community health education staff members (20). The program may be housed in such departments as outpatient services, emergency departments, social work departments, volunteer services, or patient education departments. The growing role of hospital emergency departments in health education has been documented in recent reports (21), as has that of hospital-sponsored home health care programs (22). Together these findings underscore the increasing involvement of a variety of hospital departments in health/education programs.

Factors influencing the more successful attempts at establishing community programs include commitment and support from top management, allocation of monies from the hospital itself (although a number of hospitals receive financial help from outside contracts and grants), an organizational structure that allows for flexibility, and qualified staff. However, even many successful programs appear to share a number of problems and concerns which, if ignored, could seriously curtail their future health promotional efforts. These include inadequate finances, inadequate instruction, poor content of curriculum, lack of a systematic approach to health programming, uncertain medical staff or administrative support, lack of effective marketing strategies, and ineffective evaluation and follow-up. The paucity of effective evaluation has given rise to an abundance of mediocre programming, leaving consumers bewildered or frustrated and hospital administrators disappointed. Furthermore, while hospital health education programmers may be aware of similar programs at nearby hospitals, issues of territoriality and competition often prevent the pooling of resources and ideas.

One local hospital effort that has involved other community as well as state institutions is that of John C. Lincoln Hospital in Phoenix, Arizona. The hospital's health promotion center is currently working with the State Department of Health and the public school system to assess the feasibility of developing a health educational program for school-aged children which would be administered through local hospitals. A growing number of hospitals have enthusiastically embraced the area of health education/promotion, but the problems stated above could limit the growth of such efforts. Also, further reductions in funds and increased competition for those funds together with limited demonstrations of program efficacy could actually reduce the number of programs, a reduction that perhaps would have greatest impact on certain population sectors (e.g., low socioeconomic status (SES) groups).

(2) *Group Practices*

During the past 40 years, group practices in the U.S. have become a major force in the area of health care service delivery (23). Patient education programs developed jointly by the American Group Practice Association (AGPA) and Core Communications in Health, Inc. (CCH) have gained relatively widespread use in this setting (24). (CCH has since become a part of Robert J. Brady Company, a publishing firm located in Bowie, Maryland). One advantage of delivering health education/promotion in this setting is that a clinical encounter with illness is a propitious time for introduction of prevention themes. Also, the physical setting permits cost-sharing of health educators and physicians. Negative factors in this setting include the reluctance of physicians to use nonphysician health educators, outside materials, or referral protocols (2, 25) and the lack of third-party payment for patient education undertaken by nonphysicians in this setting (26). Some investigators have stressed the need for (a) a shared group philosophy supportive of health promotion, (b) administrative support in establishing formal patient promotion activities, and (c) the importance of structured referral procedures in facilitating health activities (24, 27, 28).

Health education/promotion endeavors supported by group practices have involved both individual and group programs. Popular programs used include cardiac rehabilitation, risk factor modification, diabetic teaching, and the teaching of relaxation skills (24). One successful group practice program is the Hitchcock Clinic in Hanover, New Hampshire. This clinic, one of four independent components of the Dartmouth-Hitchcock Medical Center, develops and coordinates health promotion activities which are then delivered by the individual specialty groups (24). The Carle Clinic, in Urbana, Illinois, utilizes a similar structure for planning and implementing health promotion programs, though with their central education department playing a somewhat larger role in program dissemination (24). Other examples can be found of smaller group practices utilizing the health promotion programs offered by local hospitals and community agencies.

(3) *Health Maintenance Organizations (HMOs)*

Although the term *health maintenance organization* often suggests prevention to many people, and some HMOs do allocate funds for health education activities, skepticism about the efficiency and costs of health education/promotion programs has prevented many HMOs from establishing formalized health education programs (29). A national survey revealed that less than half the HMOs surveyed had targeted specific funds for health education activities (29). Until recently, Federal qualifications for HMOs required health education/promotion programs, but as a result of the Omnibus Budget Reconciliation Act in 1981, this requirement was eliminated.

Published information on specific health education/promotion programs in HMOs is sparse (29). Northern California Kaiser-Permanente Medical Centers recently listed 71 different health education/promotion activities, but other HMOs, being much smaller and younger than Kaiser, often do not have the resources to allocate to such programs. Other problems that militate against these programs include inadequate evaluation (30) and Federal budget cuts that most probably will result in curtailment of health education/promotion progams within HMOs. Other problems include competition over who should do health promotion; hiring of unqualified individuals; inadequate needs assessment; and a reduced value on health promotion in favor of more visible direct services that are rewarded more highly. The potential for HMOs to have a significant impact on health education/promotion remains, but their influence can no longer be assumed.

(4) *College Health Services*

The majority of two-year community colleges and four-year colleges and universities in the U.S. have acknowledged some responsibility for at least some of the health care of their students (31). Recently many college health services have developed comprehensive educational programs, including dental health, mental health, and prevention efforts within primary medical care. Other more innovative developments have included sports medicine programs (32), use of mobile health vans and dormitory health contests (Davis, personal communication, 1983), and the promotion of consumer involvement (33). In response to financial pressures, some campuses (e.g., Yale and Harvard) have set up HMOSs for both students and staff. Some colleges have increased their use of health education while decreasing medical services, while others have organized combined campus programs in which several schools have shared services. The increased use of peer counselors has also helped to cut health education/promotion costs.

Frequently offered programs include those on family planning, communicable disease, psychological problems, exercise, nutrition, drug abuse, alcohol, sexual problems, diabetes, and first-aid (32). Unlike many agency-run health education/promotion programs, many college health programs have built-in evaluation techniques, including follow-up evaluations of program effects (34), comparisons of various methods of teaching (35), and analyses of cost-effectiveness (36).

Factors having a negative influence on the development of college health education/promotion include inflation and rising health-care costs; decreased enrollments; emphasis on a disease-oriented, rather than a prevention-oriented, philosophy; lack of student awareness of available programs; confusion and competition over who is or should be responsible for health education/promotion; a belief that health education/promotion doesn't work; shortages of trained health educators; and inadequate programs secondary to poor delivery and/or ineffective content (32). Issues that need to be faced include the development of a total health education/promotion program, rather than activities targeting isolated needs; further exploration of future financial support for health education activities; better integration of health education/promotion with ongoing clinical services; and the more frequent use of evaluation and quality control techniques in conjunction with cost-effectiveness assessments.

(5) *Mental Health Centers*

The introduction of health education/promotion efforts at mental health centers is still in its infancy. A growing number of mental health providers, including clinical and counseling psychologists and consultation-liaison psychiatrists, have begun to make significant contributions to health promotion in primary care settings (37), but similar efforts at mental health centers are just beginning. Suggested reasons for this include minimal exposure to such programs, limited funds, and the fact that most health education/promotion efforts are aimed at physical rather than behavioral/emotional problems.

(6) *Local Health Departments*

Local health departments vary widely in both their autonomy and in their involvement in health promotion. Of interest is the finding that those local departments least supported by their State agencies were found to have the most innovative and effective programs (7). These departments had developed strong ties with the Federal government via Federal grant programs that called specifically for health education components. The initiation of the HERR program may make it more difficult for these more decentralized local health departments to gain support from their State organizations (5, 38).

(7) *Conclusions Concerning Local Efforts*

It is clear that a number of health promotion efforts have been initiated by a variety of agencies and organizations on the local level. Such efforts can be tailored to the needs of local populations, but their relative isolation can lead to redundancy of programming, ignorance of innovative programming efforts, and a strain on budgets and staff. Furthermore, even the more innovative local health education/promotion programs have lacked systematic needs assessments and program evaluations.

E. Federal Health Care Facilities

Federal health care facilities, including the Veterans Administration (VA) and the U.S. Armed Forces, have acknowledged the necessity of providing some type of health education/promotion programming to their constituency (39). One such facility is discussed below.

(1) *Veterans Administration*

The VA health care system is the largest centrally directed health care system in the U.S. (39). It is divided into a number of levels (e.g., regional level, district level, local level), and at all levels there is a position for a health education coordinator, whose function is to aid in delivering high quality health education/promotion services to the VA population. The VA Library Network (VALNET) is a valuable means of enhancing resources of individual VA health education facilities. A 1977 VA task force on health education/promotion recommended specific strategies in the development of more coordinated and comprehensive efforts in this area; the task force also emphasized the need for a formal evaluation of VA health education/promotion programs (39). How the task force's recommendations will ultimately be translated into action remains to be seen. The transiency of the VA clientele and funding limitations are among the constraints in the way of improving health promotion services to veterans and their dependents.

(2) *Conclusions Concerning Federal Health Care Facilities*

While Federal health care systems such as the VA offer the potential for large-scale networking frequently missing in other types of health care settings, their specified clientele and underlying Federal support significantly limit their utility as models for health education/promotion programming efforts.

III. ISSUES IN THE FIELD

A. Barriers or Myths to be Overcome in Advancing Health Education/Promotion

(1) *The Assumption That Health Education/Promotion Is Ineffective*

Many proponents of health promotion have had to face resistance stemming from the rather prevalent belief that health education "doesn't work." This belief has prevailed for a number of reasons. First, individuals tend to confuse "health education/promotion" with the obviously inadequate strategy of simply distributed health information to a population segment. A successful program requires a needs assessment to define specific targets and would include social marketing strategies (40) coupled with pilot studies leading to the development of products and curricula (41). It requires testing of communication modes and behavior change strategies for the target population. It also requires skills training and maintenance components, based on empirical findings (41). The ideal program would include a built-in evaluation system which permits the program to be changed to enhance positive outcomes.

There is increasing evidence that such systematic health education/promotion efforts do decrease disease risk. The Standford Three Community Study (42) and the Finnish North Karelia Project (43) have demonstrated substantial positive behavioral and physiological effects from health education/promotion in cardiovascular disease prevention at five years (44) and ten years (45). The Australian North Coast Project (Eggers, personal communication, 1978) has also reported that significant, albeit small, changes in smoking rates in the two treatment communities have been achieved. Additionally, the Swiss National Research Program has accumulated early risk reduction findings that appear to be promising (46). Such results indicate that health promotion interventions can be successful in leading to positive health outcomes.

Efforts on a smaller scale have resulted in impressive health effects as well. For instance, Miller and Goldstein (47) found that the development of a clinic telephone hot line for a community's diabetic population resulted in a 50% reduction in number of emergency room admissions for diabetic coma, even though the clinic's patient population increased during the same period.

A second reason for skepticism about health education stems from the twin problems of inadequate evaluation and poorly planned and executed health promotion programs. In this regard, skepticism is certainly warranted.

A third reason for skepticism stems from the expectation that health promotion efforts can produce quick results. These expectations ignore the fact that many health habits are deep-rooted and reinforced by custom, advertising, peer pressure, and even by addiction to substances such as nicotine. Quick "cures" do not exist. What is more, in some areas (e.g., smoking cessation, weight loss) even the most effective programs produce results that are only temporary for many individuals (48, 49). Clearly, more realistic structuring of expectations concerning health education/promotion programs is necessary.

(2) *The Assumption That the Connection Between Health Habits and Disease Is Not Established*

Some health professionals continue to question whether the link between risk factors and disease is sufficiently strong to warrant aggressive attempts to change long-standing and ostensibly preferred lifestyles. It is true that despite the promising results from recent controlled studies (50, 51), there are unanswered questions in many of the risk areas in the 1990 Objectives for the Nation, from the relationship of diet to cancer to the optimal frequency of screenings for various diseases.

However, a growing number of health professionals believe that the data are strong enough to justify intervention in such areas as smoking, diet, blood pressure, physical activity, and alcohol, among others. Furthermore, given the accumulating evidence that changing behavioral risk factors *can* have an impact on health outcomes, the ethical ramifications of *not* intervening must be considered, particularly given the benign nature of lifestyle change. Efforts to promote behavioral change should include reference to any uncertainties concerning the benefits of that change. This allows for informed decision-making by program participants. However, it also requires that the health professional be up-to-date concerning the *overall* findings in a field. National professional organizations can help in this regard. For example, following their Eleventh Bethesda Conference on Prevention of Coronary Heart Disease, the American College of Cardiology published an overview of the relevant literature along with specific directives for physicians concerning health education methods in this area.

(3) *Gaps in Methods of Health Promotion Inhibit Progress*

Significant and serious defects in health promotion methods exist at many levels because of a lack of research and development funds. For example, the theoretical basis for behavior change technology is bewildering in its diversity, and the resultant lack of coherence makes planning difficult (52). A second problem is that much behavioral research has been carried out in highly selected populations, often in college-age volunteers. It is dangerous to extrapolate the results of such narrowly focused research to older populations or to the broader range of ethnic groups and socioeconomic status that exists in the "real world." A third problem is that for most formal research there has not been enough time to determine whether changes are of a lasting nature (53). When this design element has been included in studies, lack of durability of change has been the rule rather than the exception (49, 54). It is clear, therefore, that more research is needed on maintenance methods. As a corollary to this, we should look at such settings as worksites or communities, where social networks, family factors, and environmental elements that can influence change and foster maintenance can be studied.

The artificiality of much prior research decreases its relevance to the tasks commonly encountered in health promotion. An additional limitation of most prior research is that it paid less attention to the recruiting and organizational components of health promotion than to the specific behavioral steps an individual must take once caught in the "net." One outcome of this has been the lack of a widely accepted name or theoretical base for this field. There is a literature on community organizations, but much of it deals with political change or assumes an adversarial role between the organizations, or groups advocating change and those in the establishment (55). Recently, our group has attached the provisional label of "Community Organization for Health" to all the organizational accouterments above and beyond educational strategies needed for success of health promotion. Additionally, we identified a beginning set of theoretical precepts for this field and identified some important future research needs (41).

Present deficiencies in the research base for health promotion indicate more a need for adding evaluation to future programs than for denying the wisdom of proceeding with an expansion of activity in this field.

(4) *Deficiencies in the Use of Evaluation of Health Promotion Programs*

Because of insufficient evaluation, the value of many health promotion programs is largely unknown. The costs of undertaking evaluation are often formidable, but so are the costs of ignoring it. They include economic liabilities incurred as dissatisfied organizations and consumers drop out of slipshod or unproven programs. Organizations may balk at the expense of doing thorough program evaluations, but there are some simplified evaluations that can be undertaken: pre- and postactivity assessments of relevant information and knowledge; questionnaires concerning specific gains participants accrued from the program; use of stationary bicycle or step tests to directly assess physical gains achieved from aerobic exercise (56); the use of simple, portable instruments to measure carbon monoxide levels in individuals attending smoking cessation programs; pre- and postintervention food diaries to assess changes in nutrition and diet; and blood pressure assessment in evaluating the effects of relaxation or similar stress management activities.

Organizations planning health promotion are also advised to use pilot programs to develop and pretest classes or mediated instruction before going to large-scale applications (41). Such small-scale evaluation procedures can provide objective feedback as to which programs appear to be having measurable changes on health behaviors and which need to be modified. Larger scale, better controlled studies of health promotion programs should be undertaken by the organizations that have the expertise and resources to carry them out (e.g., medical centers and universities). It is important that such multilevel evaluations encompass both program content by use of formative evaluation and the most efficacious modes of delivery for differing population segments (41). It is also important that once such knowledge is secured, it is effectively transmitted to individual health practitioners.

(5) *Uncertainty on Sources of Funding for Health Promotion*

Since Federal support for health promotion has been decreasing, alternative methods of obtaining the funds necessary to finance such endeavors must be considered. One potential funding source is third-party payment by insurance companies for health promotion activities, but it is likely to come about on a large scale only if preventive strategies are shown to have a significant impact on health care costs or on morbidity and mortality. This again reveals the need for systematic research to provide third-party agencies with the data they need to reward preventive efforts on the part of both individuals and organizations.

Sharing costs between an institution and the beneficiary is also possible. In a recently developed health promotion program for Stanford University faculty, staff, and families, we found that one-third of the costs may be supported by individual participants and two-thirds as benefits from the University (57).

(6) *Territorial Conflict Among Primary Care Health Organizations and Health Professionals*

Among the most challenging threats to the progress of health promotion is the competition and turf building that is apparent at all levels of the health care industry. It has also become clear that many health professionals do not at present have adequate training or experience to design, implement, and evaluate health promotion programs. This is *not* to say that any one health profession or organization has or should have intrinsic authority or investiture over the health promotion field. Rather, it appears that the complexity of the field will continue to require the expertise of a variety of health professionals, including health educators, psychologists and other behavioral scientists, nurses, physicians, dietitians, and communication experts. Indeed, the multidisciplinary health promotion team approach seems particularly appropriate given our increasing understanding of the behavioral, social and cultural factors influencing health and disease. Interested organizations or individuals can begin by recruiting interested professionals in other health organizations or by attending workshops and programs on health promotion held in the community, including those offered by local universities. By establishing networks among organizations and professions, a greater exchange of knowledge as well as resources could accrue, resulting in better programming for larger portions of the population. Such exchanges would also allow the health care community to come to a greater consensus concerning the most appropriate roles various health professionals should play. We do not wish to imply that there are easy solutions to the ever-growing problem of professional competition and boundary delineation. There are none. Instead, continued open discussion and effort on the part of all health professional groups and their members will be necessary to develop a workable solution to this problem.

The issue of training health professionals in new health promotion roles is related to the plea for cooperation. The multi-disciplinary team approach recommended for program delivery could easily be extended to the area of professional training. Introducing health professionals in their education to the ways in which the training of other health professionals interface with their own training can enhance the possibility of more frequent interprofessional communication and referral as well as increasingly efficacious programming.

B. Other Issues in the Health Promotion Field

(1) *Tendencies Toward "Over-Medicalization" of Health Promotion*

Several writers have noted that the term "health promotion" has become synonymous with such specified medical services as screening and disease detection. These are secondary prevention efforts that comprise only one aspect of the health promotion field. Health educators and professionals must inform other professionals, granting agencies, and the public about the variety of primary, secondary, and tertiary preventive activities that health education/promotion encompasses. This three-pronged health promotion orientation is reflected in the 1990 Objectives for the Nation (2).

(2) *The Influence of the Media on Establishing National Priorities in the Area of Health*

Relatively few people today would question that the nation's media exerts an impact on our culture and on the public's health habits. Unfortunately, while the majority of preventable deaths, illnesses, and injuries in this country are associated in some manner with certain foods, cigarettes, alcohol, and automobiles, a substantial amount of revenue obtained by the media comes from the advertising of such products. It thus comes as no surprise that less time is allocated by the media to the health aspects of such products than would be desirable or relevant, given their significant impact on our nation's health (58). Current projects are investigating more appropriate ways of martialling the influence of the media to aid rather than undermine health promotion efforts.

(3) *The Modeling of Appropriate Health Promotion Behaviors by Health Service Providers and Health Care Settings*

It is apparent that the modeling of behaviors by persons considered to be in positions of authority or expertise can have an important impact on the behaviors of others (59). Health professionals should study the impact of their own health behaviors and patterns on the behavior of the individuals they are attempting to influence. A similar statement can be made concerning health care settings. Some hospitals still sell tobacco products (some at a reduced price) in their cafeterias or gift shops and have few if any regulations governing smoking in the hospital. Food choices in hospital cafeterias do not always include low-salt or low-fat alternatives that many patients and their families have been directed to eat. While this issue is complex, the messages such incongruities may convey to the public must be considered. A further advantage will accrue to the health professional who adopts the health habits he or she would teach. In this process of adopting, he or she will learn how to become a more effective teacher as well as a role model. An adage "Health Professional—Heal Thyself" therefore can be promoted as an overt goal in creating an effective health promotion team (41).

(4) *The Apparent Paucity of Health Promotion Programs for Special Groups*

Although increasing efforts have been made by some organizations to assist health service providers in meeting the health promotion needs of special consumer groups (60), much more needs to be done. Such special groups include non-English speaking and minority groups (e.g., American Indians, Hispanic Americans, Black Americans, Asian and Pacific Americans), individuals with low literacy skills, and individuals with physical handicaps (e.g., hearing or sight impairment). In addition to communication difficulties, the health professional may also have to contend with barriers to education imposed by discrepancies between modern health practices and the individual's traditional healing practices or culture-based beliefs (60).

Other population segments that have been targeted for increased attention by health education and promotion professionals include the elderly and low-SES individuals.

IV. CONCLUSIONS

In summary, an investigation of the current literature and of programming efforts being taken in the area of health education/promotion reveals that while interest and efforts in the field are burgeoning and advances have certainly been made, a number of major issues remain. Among the most pressing are the difficulty in acquiring financial support for preventive efforts, the scarcity of formative and evaluative research to guide and validate health education/promotion activities, and widespread competition and territorialy among professionals and organizations. While none of these difficulties is insurmountable, their resolution is going to require increased collective interchange and action among those who would provide health education/promotion services.

It is also clear that effective health education/promotion efforts will require a public health approach that considers social networks and environmental influences as well as individual behaviors. The term lifestyle becomes particularly important in this regard because health behaviors, like other behaviors, do not occur in isolation or in a vacuum. Rather, they are affected by a myriad of cultural, social, psychological, and biological forces, many of which are still not completely understood. An organized *community, interdisciplinary* approach is the most effective means of acknowledging and comprehending these factors. A community approach to health education/promotion offers the advantage of being small enough to avoid the potential unwieldiness and insensitivity to regional/local population nuances often found in larger health systems. In addition, it allows for the integration of a variety of personnel and resources that is often missing in local efforts by single organizations.

The actual locus of community health education/promotion efforts is a matter for informed discussion and debate. In smaller communities, the hospital might function as the "citadel" of health as well as illness. Larger communities might develop a two-locus system using program developers and evaluators (i.e., universities) and health promotion providers. Stronger and more organized networking between health researchers and health practitioners would improve possibilities for developing and delivering more efficacious disease prevention services. The utility of such a network might be enhanced by the establishment of consortia representing each of the two areas discussed. This university-community model is in many ways analogous to the Department of Agriculture's extension service, which disseminates innovations and advances to practitioners in the field—something which is clearly needed in the area of health education/promotion. Utilizing a consortium of university staff from a variety of backgrounds (e.g., human biologists, communication experts, behavioral scientists, medical staff) might well result in the development of more effective programs. Similarly, the development of a consortium of community organizations would give the university team access to the community and perhaps defuse some of the turf protection issues which have arisen.

The linkage between research and development organizations and practitioners in the field through such consortia or smaller interdisciplinary team approaches, as well as through seminars, workshops, and other presentation formats, is vital to the future quality and durability of the health promotion field. The addition of third-party payments into such a system would provide an additional, much needed boost to enhance the solvency of this (or any other) type of health promotion effort. However, regardless of the source of revenues to support continued health promotion, it is becoming apparent that a greater proportion of those revenues will need to be funneled into research and development activities.

National organizations will continue to play an important role in the developing health education/promotion arena. Potential areas where national organizations may have greatest impact include,

(1) educating their constituencies to the growing interdisciplinary focus that health education/promotion is taking, and particularly to the ways they contribute to the field by *interfacing* with other health professionals. Only in this way can many of the territoriality issues be resolved and a sounder, more integrated orientation to the field be established.

(2) establishing a formal clearinghouse to provide relevant, up-to-date information to all members, and, if possible, to *nonmembers* as well. An alternative or addition to the use of information clearinghouses for each profession or health care setting might be a centralized, uniform network to distribute information across the nation, perhaps housed in our nation's public libraries or universities. Clearly, these and other alternatives will have to be explored in much greater detail before we can turn the vast labyrinth of health information and materials currently available into a more easily negotiable, usable health information system. However, such organization is essential to the future development of the health education/promotion area.

(3) developing interorganizational methods for achieving a greater impact in the public policy arena in the areas of health promotion and disease prevention. National organizations, by uniting on common goals and strategies, could influence policy decisions on local, state, and national levels regarding such issues as smoking in public places; food labeling that states the sodium, fat, and cholesterol content; regulations concerning third-party payment for appropriate health promotion activities; environmental regulations that will facilitate access to safe methods of exercising (e.g., pedestrian and bicycle paths, bicycle lanes, parcourses); taxation policies relevant to those industries—such as the tobacco, alcohol, and food industries—that have a major impact on this nation's health; and modification of educational curricula to include the teaching of health promotion information and strategies to our nation's youth.

These are just three of the many issues that the health education/promotion field in general, and national health organizations in particular, will continue to face in the future.

V. LINKING THE 1990 OBJECTIVES TO FUTURE PROGRAMS

It is beyond the scope of this paper to discuss in any great detail the varying implications which the "state of the art" in health education/promotion holds for achieving the 1990 Objectives for the Nation in each of the 15 targeted health priority areas (2). That challenging task is left for others to address. Instead, the five areas targeted in *Objectives for the Nation* under the heading of "Health Promotion," as well as a sixth area—that of high blood pressure control—are briefly addressed here in a description of the types of programs and activities that appear to offer the greatest potential for helping to achieve the 1990 Objectives.

A. Cigarette Smoking

In contrast to early approaches to cigarette smoking cessation which tended to regard this behavior largely as a simple, overlearned habit (61), smoking has since emerged as an extremely complex and difficult-to-treat behavior pattern with strong addictive features (54, 62). While a relatively large number of smokers quit each year using a variety of methods (e.g., aversion strategies, stimulus- and self-control techniques, group and social support methods), it is also apparent that even high-risk individuals resume smoking within a few months after quitting (63). Clearly, we need to identify relevant methods for long-term maintenance.

Promising areas for study include the enhancement of naturally occurring social support systems, relapse preparation training, the use of nicotine chewing gum in conjunction with measures of nicotine dependence, and more intensive study of individuals who have quit smoking essentially "on their own."

A second approach concerns the public policy arena. The tobacco industry continues to be a powerful force, but some inroads have been made (e.g., limiting cigarette advertising and restricting smoking in public places) (60). The introduction by some insurance companies of a differential insurance premium system influenced by smoking status is an important step which must be encouraged. It is in such areas that national health organizations might be able to exert a powerful role in influencing this behavior. A third promising approach lies in the development of programs and educational campaigns that are preventive in nature. While relatively minimal time and effort have been spent on preventive efforts to date, those programs which have been implemented with adolescents have in general yielded encouraging results (64-69).

B. Physical Fitness and Exercise

While physical fitness and exercise are gaining increasing recognition as important health-related behaviors, exercise continues at present to be among the least studied of such behaviors. Little attention has been paid to methods of achieving long-term adherence to both structured as well as less formal (i.e., routine) physical activity (67). Factors that have been found to influence exercise adherence include social support (68, 69); program factors, such as convenience (70) and the overall intensity of the exercise (71); and problems underlying the maintenance of "self-motivation" (72, 73). These and other cognitive/psychological/social variables controlling exercise adherence require a great deal more explanation (67). While some type of physical education program has traditionally been offered in the schools, it often appears that these activities are competitive in nature rather than focused upon teaching a lifelong pattern of pleasant aerobic exercise. It may be up to health professionals in other community settings to help foster such patters in youngsters as well as in other populations (e.g., inner city residents; adults over age 65). National organizations may be called on to play a greater role in such activities. In addition, minimal study of community- and media-based approaches to exercise has occurred. It is likely that the implementation and evaluation of many of these types of approaches to exercise adherence will have to take place before the present national interest in exercise can be translated into long-term behavioral maintenance.

C. Nutrition and Obesity

Some promising approaches to changing nutritional habits on a community level are currently being studied as part of multiple risk factor intervention studies such as the Stanford Five City Project (74) and the Minnesota Heart Health Project. They include media-presented cooking shows, nutrition self-help "kits," and tip sheets distributed at food establishments (e.g., supermarkets) throughout targeted communities. In addition, the utility of less costly alternatives to more traditional community weight loss programs, such as weight loss correspondence courses, is presently being evaluated. As is the case for the other health-related behaviors discussed, the influence of early learning and habit development on later behavior patterns supports intervention in childhood and adolescence. More aggressive interventions of the most appropriate ways of combining different weight loss interventions (e.g., the combination of very low-calorie diets with behavior management techniques) (49) may result in greater success in long-term weight control maintenance. Other promising treatment approaches that require continued *systematic* investigation include the utility of social support in maintaining proper nutritional and weight control habits (75), as well as the role of physical activity in weight loss and maintenance (76).

D. Alcohol and Drug Abuse

While alcohol and drug abuse have been longstanding national problems with far-ranging consequences, there is little consensus as to the most efficacious treatments for these disorders (77). Trends toward a more systems-oriented, interdisciplinary approach to treatment (i.e., consideration of the relationship between psychological, biological, and environmental factors) have been applauded (78). A variety of treatments have been promulgated (e.g., aversion therapy; controlled drinking, milieu-oriented programs; personal support networks) and many have shown some success. However, evaluations of outcome often fail to take into account the variability of the alcoholism syndrome (79). Recently, public policy in the U.S. has taken important steps toward tightening regulations governing the sale of alcohol as well as increasing the penalties for alcohol-related acts (e.g., new drunk-driving laws), but increased involvement by national health organizations is needed to counteract the potency of the pro-alcohol concerns. Also, there are difficulties with present laws (e.g., the vagueness of the definition of "intoxication") that need to be more strongly addressed (80). Finally, more attention must be paid to the areas of primary and secondary prevention of alcohol and drug abuse before we see any significant drop in the prevalence of these syndromes (82). Prevention has traditionally ranked lowest among alcohol and drug dependence funding priorities on local, state, and federal levels (81, 82). Similarly, there has been little intervention with particular population segments at increased risk for alcoholism, including minority groups, youth, women, and the elderly.

E. Control of Stress and Violent Behavior

The area of stress, like that of physical activity, has received relatively minimal *systematic* attention. A variety of "stress management" programs have appeared, but many of these are "for profit" offerings devoid of content based on thorough research. There has been little formal evaluation of stress control methods, mainly because of the difficulties of adequately defining "stress" and of developing useful techniques for measuring it. The use of psychophysiological assessment equipment (i.e., biofeedback devices) has become increasingly popular in the assessment and treatment of stress-related physical response (83, 84), but the differential response of individuals to stressful conditions requires the use of multimodal measurement tools and interventions to match the stress to the most effective treatment strategies. Perhaps the best researched technique for reducing some of the negative physical and psychological consequences assigned to stress is systematic relaxation (85, 86). Relatively little attention has been paid to the investigation of other promising techniques (e.g., time management training, cognitive restructuring, anger-control training) and their effects on stress and stress-producing behavior patterns (87). High-risk populations for increased intervention include low-SES populations, minority groups, individuals undergoing major life changes, the elderly, groups such as alcohol and drug abusers who have evidenced poor coping abilities, and individuals lacking in a perceived amount of social support. Current literature suggests that such social support may act as an important buffer against stressful situations (88).

F. High Blood Pressure Control

Because the etiology of hypertension is multifaceted, its treatment and control will require increased attention to the multitude of physiological, behavioral, and social factors that appear to exert an influence on it. Factors currently being studied include stress and related behavior patterns (e.g., Type-A behavior pattern), alcohol, obesity, physical activity, and diet (in particular, dietary sodium). Some of the strongest evidence accumulated so far has been in the area of obesity and its relationship to hypertension (89, 90). Dietary sodium also appears to be an important factor in at least some cases of hypertension (91, 92). However, controversy surrounding this and other physical risk factors still remains (93).

Promising nonpharmacologic treatment approaches include modification of the above-mentioned risk factors (i.e., weight reduction, dietary sodium restriction, restriction of alcohol use, and increased regular physical activity), as well as behavioral methods for lowering blood pressure (e.g., systematic relaxation or biofeedback training) (94-96). Some success with these strategies has been reported, but the relatively small numbers of patients, the omission at times of proper control conditions, and the relative lack of comprehensive evaluation and follow-up studies have left many researchers cautious about recommending these strategies in lieu of drug therapy (90, 97). It will be left to future research to develop the most efficacious strategies for different patient populations. Antihypertensive drugs may be the current treatment of choice for many patients, but the problem of medication adherence remains (98). New research approaches include increasing drug regimen convenience and simplicity, and reducing side-effects (99). Others are taste-cueing procedures, the use of biological tracer substances, and increasing patient involvement in medication issues (100). Little attention has been paid to the delineation of preventive measures that could curb future development of hypertension. Intervention with individuals considered to be only mildly hypertensive (90 to 104 mm Hg diastolic blood pressure) is also strongly warranted (101).

As indicated throughout this paper, the attainment of significant advances in the health education/promotion field is predicated on the increased utilization of systematic research and development activities. Only in this manner will we have the hope of realizing the challenging goals listed in the 1990 *Objectives for the Nation*.

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VII. APPENDIX: SELECTED RESOURCES SECTION

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Carle Clinic Association
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Eleventh Bethesda Conference:
Prevention of Coronary Heart Disease
American College of Cardiology (Sponsor)
The American Journal of Cardiology
March 1981

Florida Health Program Office
Department of Health and Rehabilitation Services
1323 Winewood Boulevard
Tallahassee, FL 32301

Health Promotion Consortium of Monterey County
c/o Rose Simmons
Executive Director
American Cancer Society
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Monterey, CA 93940

John C. Lincoln Hospital
9211 North Second Street
Phoenix, AZ 85020

Kaiser-Permanente Medical Center
Oakland Hospital
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Oakland, CA 94611

Kaiser-Permanente Medical Center
Health Library
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USDHHS Public Health Service
Health Information Resources in the Department of Health and Human Services
Washington, DC 20201:
National Health Information Clearinghouse, 1980. DHHS publication no. (PHS) 80-50146

Veterans Administration
Central Office
Library Division (VALNET)
Washington, DC 20420

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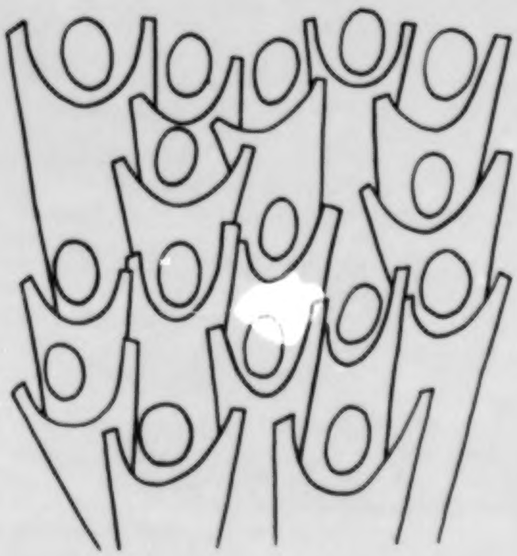

Section 4: Background Papers
Worksite Wellness

INTRODUCTION

The United States is experiencing a cultural shift. The long-held view that health is merely the absence of disease and can be restored through high-technology medical care is being tempered by the perception of opportunities to improve health status through environmental safety and altered personal lifestyles. The shift is reflected in a Louis Harris survey, which reported that 92.5 percent of those polled agreed with the statement:

> If Americans lived healthier lives, ate more nutritious food, smoked less, maintained proper weight, and exercised regularly, it would do more to improve our health than anything doctors and medicines could do for us.

A new word summarizes the attempt to achieve optimal health: wellness. Programs that promote wellness include the identification and treatment of diseases or biological risks that lead to disease, such as hypertension and diabetes; behavior change, such as improved nutrition, physical fitness, weight reduction, and stress management; environmental changes that reduce exposure to hazardous or toxic substances or intolerable levels of stress; and educational efforts to increase awareness of the opportunities for self-improvement and the appropriate use of medical services.

Wellness activities can be observed in many aspects of American society. Wellness-related products—such as running apparel, vitamins, and biofeedback equipment—have become more than a $30 billion a year industry (*Time*, Nov. 2, 1981, p. 103). Food products are changing to meet consumer demands for more fiber and natural nutrients and less salt, caffeine, calories, and refined sugar. Advertising campaigns increasingly stress society's positive perception of wellness. Information about wellness is reaching the public through television, magazines, and best selling books.

Several dominant themes account for the societal and, hence, workplace shift toward wellness. The nature of illness has changed during this century from acute infectious disease to chronic, lifestyle-related disease over which individuals have greater control. Today, three causes of death account for 71 percent of all deaths in the United States: cardiovascular disease (40.7 percent), cancer (23.9 percent), and accidents (6.7 percent) (National Center for Health Statistics 1983). Although the exact cause of the first two illnesses is still unknown, there are clearly, predisposing risk factors, including high cholesterol, hypertension, obesity, diabetes, smoking, stress, exposure to toxic substances, and lack of exercise.

In addition, the relationship between lifestyle and incidence of illness has been more firmly demonstrated. For example, Dr. Lester Breslow at

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UCLA conducted a study to estimate the health effects of the following lifestyle practices: three meals a day, no snacks, breakfast every day, moderate exercise two or three times a week, seven or eight hours of sleep per night, no smoking, moderate weight, and moderate alcohol consumption. After following 7,000 persons for several years, the study concluded that the average 45-year-old male who observed 0-3 of the above practices had a life expectancy of an additional 21.6 years, while the same person who followed six or seven of the rules could expect to live another 33.1 years—11.5 years longer (summarized in Cunningham 1982). (For examples of other reports of studies demonstrating the effect of lifestyle, see Dawber 1980 and Bauer 1980.)

For a variety of reasons, the worksite is a logical setting for wellness programs. Illness generates expenses for health insurance, workers compensation, reduced productivity, absenteeism, and turnover. Statistics have been assembled that suggest how expensive ill health and risk factors are for employers. For example, one smoking employee is estimated to cost employers between $624 and $4,611 dollars annually more than a nonsmoking employee in medical costs, absenteeism, replacement costs, maintenance, property damage, other insurance increases, and lowered productivity (Kristein 1980, Weis 1981). Annually, more than 26 million work days are lost due to cardiovascular disease and hypertension (Cardiovascular Primer, 1981), and some $19 billion in work loss days was attributed to excessive drinking in 1979 (Cunningham 1982).

Seen more positively, the worksite offers opportunities to facilitate healthy behavior. Most people spend one-third of their time at work. Workplace programs usually have higher participation rates than community programs. For example, New York Telephone achieved 90 percent participation in a multiphasic screening program, while a similar community program achieved a 30 percent participation rate, even with extensive publicity. In addition, the corporate culture can contribute positively or negatively to health-related behavior.

For some industries, the motivation to be current with societal trends comes from their product line. Wellness relates directly to the business of hospitals, drug and vitamin companies, device manufacturers, insurers, food producers, and fitness facility and equipment vendors. For others, incorporation of the concept can favorably affect advertising, recruitment, and public image.

This chapter first profiles worksite wellness programs. The organizations—such as hospitals, voluntary agencies, private firms, and insurance carriers—that market wellness services are then profiled. A discussion of the evidence regarding the effectiveness of these programs follows. Finally, some of the issues associated with the worksite wellness movement are discussed. Not within the purview of this chapter are the important areas of occupational health and safety, because they are separate programs and raise different issues.

PROFILE OF WORKSITE PROGRAMS

Most worksite wellness programs have developed piecemeal rather than through the implementation of a strategy. However, corporate strategies have emerged that integrate many aspects of work and health. Although still in the minority, companies such as General Dynamics have appointed committees to formulate health enhancement strategies that include representation from several departments, e.g., personnel, safety, medical, benefits, fitness, employee assistance, and corporate planning.

Statistical surveys of worksite wellness activities must be interpreted with great caution. No survey has sought to sample every type of employer, nor has any survey recorded all of the elements of wellness programs. In addition, the geographic dispersion of worksite wellness makes pinpointing company efforts difficult. For example, a corporation may have an extensive program at headquarters, but minimal activity at other locations. A consistent pattern does, however, emerge in surveys conducted by the Washington Business Group on Health in 1978 and 1982, the Health Research Institute in 1979 and 1981, and the benefits consulting firms of the Mercer Company and Towers, Perrin, Forster, and Crosby in 1982. Characteristics of that pattern include a rapid and sustained growth in the number of employers offering programs; integration with other elements of private sector cost-management initiatives; and reports of positive results, including employee satisfaction, reduced absenteeism and insurance costs, and modest measures of actual health enhancement.

Companies that have wellness programs do not necessarily make them available to all employees, and dependents or retirees may or may not be eligible to use them. IBM's program is available to all employees, retirees, and spouses at all locations, and the program at Xerox is available to all employees at all locations. Kimberly-Clark has a program for all employees, retirees, and spouses, but it is available at selected locations only, as is the Metropolitan Life program for all employees. New York Telephone has a wellness program for its high-risk employees, and Texaco has one for executives only.

One reason for the breadth and diversity of wellness programs is the large variety of individuals who design and conduct them. The first programs were predominantly initiated by very senior individuals within the corporations who believed in the benefits of a corporate culture that promoted wellness. Now that wellness programs are becoming an accepted corporate benefit, other departments are also initiating them. The motivation often reflects the source, i.e., cost when the program is started by the benefits department; morale and productivity when it is started by a human resources or industrial relations department; and health when it is started by the medical department. Corporate departments that have initiated wellness programs include: medical, benefits, human resources, training, personnel, safety, recreation, and special divisions established by senior management. Initiators have included doctors, nurses, health educators, trainers, social workers, psychologists, and people with backgrounds in physical fitness, marketing, personnel, and benefits.

Furthermore, the staff and facilities can either be worksite- or community-based. Many combinations occur. Kimberly-Clark has worksite wellness staff teaching courses on site, as do Pepsi, Northern Natural Gas, and Sentry Insurance. National ChemSearch also has its own worksite wellness staff but community facilities are used. At companies such as Rolm and IBM, on the other hand, community-based instructors (e.g., from private firms and the YMCA) use worksite facilities, and, in the case of IBM, community facilities as well. Some programs are run entirely by employee volunteers, as is the one at the Centers for Disease Control, a part of the U.S. Public Health Service. At General Dynamics, employee volunteers work in conjunction with wellness program staff.

This section addresses the components that comprise a wellness strategy. There are many ways to group or describe wellness activities at the worksite. Table 1 structures the descriptions of program categories by arranging them in categories. The left side represents those that most overlap with medical care; the right-hand side focuses more heavily on lifestyle changes. The categories are not presented as absolutes but rather as a set of organizing principles that can guide one through an exploration of worksite wellness.

Early detection of disease and biological risks reflect specific medical conditions that either represent illness or are potential biological precursors to illness. Examples include hypertension, diabetes, glaucoma, obesity, elevated cholesterol, and many forms of cancer. Programs include hypertension screening, breast self-exam courses, and periodic physical examinations.

Control of disease and biological risk programs are designed to treat or control the illness identified by the above-mentioned screening programs. Most conditions in this category require medical intervention, which is most often provided through referral to community physicians and paid for by the company-sponsored insurance plans. Examples of programs that are commonly provided at the worksite include hypertension treatment, alcohol and drug abuse treatment, cardiac rehabilitation, and courses that help control obesity and

Table 1: Worksite Wellness Categorization

Disease & Biological Risk	
Detection	*Control*
Hypertension screening	Hypertension control
Glaucoma testing	Referral services for illness detected at the worksite
Blood testing	
Diabetes screening	
Cancer detection —breast self-exam —hemacult tests	
Periodic physical exams	
Weight assessments	
High-Risk Behavior	
Detection	*Reduction*
Health risk appraisals	Information dissemination —seminars —literature —food labeling
Health fairs	
Information dissemination about health risks	Classes
	Self-help materials
	Behavior modification
	Incentives
	Incentives
Corporate culture	
Policies —smoking restrictions —flextime —program eligibility	
Management styles —environmental facilitation of healthy behavior —wellness programs	

cholesterol levels through diet changes.

Detection of high-risk behavior with known or suspected negative health consequences and include smoking, poor nutrition, inactivity, inappropriate reaction to stress, and weight above or below normal ranges. Health risk profiles, some computerized and others that can be self-scored, have been developed to help individuals determine the consequences of their risk behavior.

Programs to control high-risk behavior seek to assist individuals who want to modify their risk behavior. Current research suggests that a variety of techniques can help motivate change, including, the provisions of information, education, counseling, and incentives. For each risk behavior identified above, there are a number of approaches. For example, to assist with smoking cessation, a company may provide several different educational programs, one-on-one counseling, a do-it-yourself program, and hypnosis, while other companies may offer a single approach.

The overall corporate culture can facilitate good health. Healthy behavior has a better chance of being sustained if it becomes the norm. Policies such as smoking restrictions, making time available for exercise and classes, helping individuals meet the demands of integrating family with work through flex-time, job sharing, maternity and paternity leave, and part-time employment help to show the company's concern for the individual and its desire to promote healthy behavior. In addition, physical amenities—such as exercise facilities, the availability of nutritious food, a quiet room for relaxing, an attractive working environment, noise control, and day care centers—all promote good health.

Early Detection of Disease and Biological Risk

As more has been learned about the relationship between lifestyle and illness and as diagnostic technology has become available, the worksite has increasingly become the locus of detection and treatment programs. Medical screening programs that are designed to detect disease and/or biological risks include pre-employment physicals, periodic physicals, executive physicals, screens that target a particular risk or disease such as hypertension or glaucoma, and self-screening programs such as breast or testicular self-examination. These tests are conducted in a variety of ways, including on-site with company medical personnel and equipment; on-site through mobile screening units, community volunteers, or paid personnel; and off-site but paid for by the company.

Support for these physical exams stemmed from the belief that many diseases and biological risk factors could be successfully controlled if caught early. This theory extends into the wellness concept when companies screen for risk factors in addition to illness. Increasingly, corporate medical departments seek a balance between illness detection and risk factor identification in their screening programs. By incorporating the latest research on the medical efficacy of conducting each test on particular populations at given time intervals, employers try to determine what tests will have the most significant health impact and be cost-effective. Tests that are commonly performed at the worksite to detect high-risk populations include hypertension screening, breast cancer detection (often offered in the form of breast self-exam courses), glaucoma screening, sickle-cell anemia testing, blood tests, colon cancer screenings (frequently in the form of a self-administered test for blood in the stool), and height and weight measures for recognition of obesity. Most of these tests are low cost. Frequently, outside organizations such as the American Heart Association and the American Cancer Society, as well as insurance carriers, conduct these programs free of charge at the worksite as a community contribution or as a service to their clients.

The potential for risk reduction is great, as the programs of IBM and Pioneer Hi-Bred illustrate. Since 1968, IBM has had a multiphasic screening program that provides all 35-year-old employees with a battery of physical tests as well as a questionnaire that focuses on medical history and identifiable risk factors. Employees are eligible to repeat the exam every five years or whenever the IBM medical department suggests the tests are necessary. By 1980, approximately 90,000 employees had been screened (Beck 1980). The overall findings are striking. Of those screened, 41 percent had a previously unknown medical condition, another 33 percent had known conditions, and 26 percent were healthy based on the test results (Beck 1980). A breakdown of unknown vs. previously known is shown here:

Condition	*Unknown*	*Previously known*
Diabetes	112	1,588
Elevated sugar	10,061	1,776
Hypertension	3,494	8,368
Heart disease	3,075	3,762
Abnormal ECG	7,706	2,736
Blood chemistry	16,754	2,016
Uric acid	7,571	1,257
Cancer	89	938

Pioneer Hi-Bred in Des Moines, Iowa, is an example of a smaller company, with 2,500 employees, that implemented a health screening and incentive program in 1979, called Health Guard. All employees and their spouses are offered annual health screens, which include vital signs (health weight, pulse, temperature, and blood pressure) and a urinalysis. They also receive a complete blood chemistry during their first screen. The screens are repeated annually for persons over age forty and for those with identified problems. Others receive these tests every five years. Results are confidential and are mailed to each employee or spouse along with a comprehensive explanation. The cost per person screened averages $48. Participation rates are 97 percent for employees and 70 percent for spouses.

The company reports several indicators of success in the four years that Health Guard has been operational. In 1979, serious abnormalities were identified for 6 percent of those screened, compared with less than 1 percent in 1982. In addition, during the first year the screens were conducted, the most prevalent conditions identified were, in order of frequency: hypertension, diabetes, cholesterol level and triglyceride level. Four years later, they were cholesterol level, triglyceride level, hypertension, and diabetes. Pioneer also reports that many diabetics identified in the first screen are now being treated through diet and exercise modifications.

The disparity in the screening results between the IBM (41 percent unknown medical conditions) and Pioneer Hi-Bred (6 percent with severe abnormalities) reflects the varying levels of results that can be achieved through different screening programs. IBM's screening is vastly more inclusive and thus has a much greater opportunity to detect abnormalities. The two companies also define abnormalities differently.

Control of Disease and Biological Risk

The workplace, with its regular schedules and the economic incentives to help people avoid leaving work to go to the doctor, is an ideal location for treatment or control of diseases that require continual monitoring over a long period of time where the monitoring can be performed safely outside a medical care setting. For example, Baltimore Gas & Electric's medical department screens for hypertension, educates hypertensive employees, follows up every three months to assure compliance with the treatment, and, if necessary, provides the medication. Two areas discussed below are hypertension control and employee assistance programs (EAP), for which the evidence of effectiveness is fairly strong.

Hypertension

The relationship between hypertension and mortality is well documented by the Framingham study. This epidemiological study of 6,507 individuals was designed to determine the relationship between a variety of presumed risk factors—including hypertension, high levels of cholesterol in blood, obesity, lack of exercise, and smoking—and two major killers: diabetes and cardiovascular diseases. Named for the Massachusetts town in which the study has been conducted, the Framingham project is still collecting data after more than 30 years. One of the findings is that some 56 percent of those who died from cardiovascular disease were found to have a blood pressure of 160/95 or more, compared with 37 percent whose blood pressure was under 140/90 (Dawber 1980).

A recent study has produced results that are highly supportive of worksite hypertension programs. The University of Michigan's Institute for Labor and Industrial Relations, the Ford Motor Company, and the National Heart, Lung, and Blood Institute collaborated on a project to determine the relative effectiveness of four methods of hypertension referral and treatment programs (Erfurt and Foote 1983). Site one served as a control. The program consisted of hypertension screening and referral to the employee's doctor, if appropriate. Except for a courtesy letter to the physician, no follow-up was conducted until the end of the two-year trial period. Employees at site two were provided minimal follow-up, consisting of referral to the employee's physician with an accompanying letter to the physician and semiannual follow-up sessions. Employees at site three were provided full follow-up. The main difference between sites two and three was the intensity of follow-up. While employees at site two were contacted only on a semiannual basis, at site three follow-up visits were scheduled as needed according to the severity of hypertension. Employees at site four were offered complete hypertension treatment by the plant physician. Those not electing to accept on-site treatment were followed according to the site three protocol. The annual per-person cost of each program was $26 at site two, $35 at site three, and $96 at site four. The results of the two-year study indicated that site four provided the most successful treatment modality, as shown in Table 2.

A correlation between the control of hypertension and absenteeism was also found. One year prior to screening, matched hypertensives were absent more than normotensives at all four sites (30, 28, 12, and 29 percent more for sites one through four, respectively). Hypertensive employees reduced their absence rate over the two-year period following screening in all three experimental sites. Active participants in sites two and four approximated that of normotensives by the second year. In contrast, absenteeism among hypertensive employees increased at the control site.

Employee Assistance Programs (EAPs)

Frequently an outgrowth of alcoholism programs, EAPs focus on emotional problems of employees that, if left unattended, can be precursors of more significant—and potentially more costly—psychiatric and physical health disorders. According to an unpublished 1982 Washington Business Group on Health survey, more than 75 percent of this group's membership, which includes predominantly Fortune 500 size employers, now offer some form of EAP. Some use in-house staff exclusively, others contract out for services, while still others do both. EAPs often result in referrals to private practitioners for ongoing treatment. Although many insurance plans discriminate against mental health services, particularly outpatient treatment, the basic insurance plan is still the payment

Table 2: Hypertension Prevalence and Control Rates Among Ford Employees, University of Michigan Project

Variables	*Site 1*	*Site 2*	*Site 3*	*Site 4*
Employee population	2,561	4,619	4,316	3,502
Number screened	2,121	3,453	3,314	2,308
(% work force)	(83%)	(75%)	(77%)	(66%)
Prevalence of hypertension	16%	19%	17%	13%
Control rates: (blood pressure below 160/95)	(*N*=211)	(*N*=555)	(*N*=493)	(*N*=86)
Baseline	33%	36%	19%	24%
Final visit	47%	87%	90%	98%

Source: National Heart, Lung and Blood Institute, *National Heart, Lung, and Blood Institute Demonstration Projects in Workplace High Blood Pressure Control* (draft paper prepared in May 1983).

mechanism for treatment that exceeds the limitations of the EAP. Standard Oil of California provides full coverage for mental health treatment when it is recommended by the EAP staff.

The principal purpose of most programs now is to assist employees with personal problems (mental, legal, family, job-related, etc.) or illnesses (substance abuse, emotional illness) that can affect job performance. Employees may enter the program through self-referral or at the request of a supervisor who believes that job performance has declined. Frequently, the alternative to seeking help through the EAP, particularly where a substance abuse problem exists, is disciplinary action or dismissal. Many EAPs have expanded their focus on treatment or crisis intervention to include programs that help individuals effectively manage their time, stress, career, and family relationships to help prevent crises from occurring.

Employers have discovered that EAPs reduce accidents, absenteeism, and medical utilization, and can improve productivity. Further discussion of these benefits is included under evidence of effectiveness.

Detection of High-Risk Lifestyle

Many high-risk behaviors are the targets of public service messages provided by voluntary agencies, the government, and health organizations. Employers also provide information through newsletters, posters, audiovisuals, and pay stuffers. Health fairs have become popular community events combining the resources of many local groups to educate the public about health and risk factors. National leadership in the development of these fairs has been assumed by the nonprofit National Health Screening Council for Volunteer Organizations, Inc. (NHSCVO). This organization is the catalyst for media, corporate, volunteer, and public sector financial and in-kind services. In 1983, it involved more than 120 volunteers providing health screens across the country. The health fair has four components: health education, screening tests, referrals, and follow-up. Specialty programs are now offered to the elderly, minorities, students, the disabled, and local companies as part of a wellness strategy. Some employers, such as the Campbell Soup Company, have held health fairs for their own population to increase awareness of the dangers of high-risk behaviors and to assist with biological risk and disease detection.

In addition, statistical analyses have been performed of health risks that make it possible to determine an individual's relative risks (such as smoking, exercise, seat belt usage, weight, height, blood pressure, and reaction to stress) and provide him or her with an analysis aimed at assisting in behavior modification (Dunton and Fielding 1981). Many forms of these appraisals exist. They range from a one-page self-scoring form providing a synopsis of comparative risks, to very elaborate questionnaires yielding computer-generated responses such as risk age compared to actual age, projected life expectancy based on risks, and likelihood of illnesses that the high-risk individual may contract within five years.

Reduction of High-Risk Behavior

Employers use a variety of approaches to assist employees in reducing high-risk behaviors, including information dissemination, formal educational programs, behavior modification efforts, and financial incentives.

Information Dissemination

Employers have adopted a variety of information dissemination techniques. Many companies (e.g., Kimberly-Clark, Xerox, Boeing) provide nutritional information in cafeterias listing calories and cholesterol content of food. Some companies (Ford, DuPont, Boeing) offer a special "heart healthy" menu. Citibank offers seminars for employees on the appropriate warm-up techniques for exercise, how to buy running shoes, and how to develop an exercise regimen. Ford posts maps of two of its corporate offices with mileage measurements for employees who wish to walk indoors during breaks. Armco developed an off-the-job safety program when it discovered that off-the-job accidents caused 427,457 days lost between 1966 and 1977, which was the equivalent of closing a 500-person plant for three years. The program consists of calendars that identify a safety topic for every month, flyers that are sent to employees' homes with safety tips, and a meeting devoted to the safety tip of the month.

Education

Another approach is to conduct educational programs designed to alter personal behavior. Topics include nutrition, safety, maternal and child health, back care, driver safety, rape prevention, and alcohol and drug abuse. The distinction between information dissemination and education is that educational programs attempt to assist people over time by using more elaborate educational methods, such as repetition, reinforcement, personal contact, and the tailoring of information to appropriate learning levels. Companies such as Ford Motor Company, AT&T, and Metropolitan Life Insurance Company employ health educators. Other companies, such as IBM and Rolm, contract with community resources.

In addition, many employers have found self-help programs to be the most feasible method of providing employees education on behavior change. They are usually cheaper than classes, can be conducted at home where family members can participate, and can be offered at all work locations. Instruction methods range from workbooks to audiovisual or computer-taught courses.

One of the most extensive such programs is the Xerox Health Management Program, which entails written communication, incentives, and peer support. The employee is given a self-starter kit, which includes instructions on how to conduct a step-by-step fitness evaluation, begin a personal exercise program, cease smoking, and manage weight; there is also a bimonthly health management newsletter and posters are placed in work areas. Computerized health risk appraisals are provided. Employees are encouraged to participate and are assisted by worksite-trained volunteer facilitators. In April 1983, a buddy-system incentive program was initiated. Pairs of participants enter into a contract with each other stating that, by the end of the year, they will not smoke, be within ten pounds of ideal weight, and exercise at least three times per week. Employees who meet the contract terms receive a T-shirt. If the pair is still participating in the contract system after a certain number of months, they also each receive a wallet, and their names are placed in a drawing for items such as home computers and AM/FM stereo systems.

Behavior Modification

Noneducational mechanisms of changing behavior are offered by some employers. These include hypnosis, mostly for smoking cessation and weight control (Massachusetts Mutual Life Insurance) and biofeedback to control reaction to stress through body monitoring (Equitable Life Assurance Society). Aversion therapy is sometimes used to help individuals stop smoking. The smoker, with guidance from a professional, smokes cigarettes continuously until it becomes unpleasant if not nauseating.

Financial Incentives

An unpublished study of worksite-based behavior change incentives has identified 25 programs in 19 companies operating on or before July 1982 (Shepard and Pearlman 1982). Included were 15 smoking cessation, 5 weight loss, and 4 exercise and fitness programs, plus a stress management program. Some were offered in conjunction with behavior change assistance, while others were independent.

Analysis and Computer Systems offers monthly bonuses to those who quite smoking. The bonuses amount to $50 for the first 6 months after cessation and $300 for months 7 through 18. Six employees have participated in the program, all of whom successfully stopped. In 1967, City Federal Savings and Loan Association began paying all nonsmoking employees $20 per month extra. All nonsmokers qualified, regardless of whether they have ever smoked. Coors Industries provides a $45 rebate in $15 installments on a $60 smoking cessation program fee to those who quite for 12 months, $15 reimbursement for a slimness course, and up to $100 if weight loss goals are met during a nine-month period. Intermatic, Inc. matches up to $100 of smokers' self-placed bets on whether or not they will stop smoking. Successful quitters are also eligible for a trip to Las Vegas. In addition, four dollars per pound is paid for employees who meet their weight loss targets, and one dollar per pound is paid for those who do not meet their target but lose at least 15 pounds.

Hospital Corporation of America pays employees to engage in aerobic activities. Twenty-four cents is paid for each aerobic unit. Examples of units are one mile of walking or running, a quarter mile of swimming, four miles of biking, a quarter hour of aerobic dancing, and a half hour of racquetball. From June 1982 through June 1983, the company paid a total of $15,000 to the 300 corporate office employees who participated in the program. Twelve hundred were eligible to participate.

Pioneer Hi-Bred offers overweight employees and spouses five dollars per pound lost until the desired weight is reached. If the desired weight is maintained for one year, the participant has a choice of gifts valued at roughly $75. Of all overweight employees, 60 percent participated in the program, and 90 percent of the participants have lost at least some weight. The company also will pay an employee or spouse $150 to quit smoking for one year. A $75 gift is offered to the successful ex-smoker if abstinence is maintained for an additional year. An estimated 37 percent of the workforce smoked at the beginning of the program; 14 percent of these quit for two years as a result of it.

Blue Cross of Oregon offers an insurance plan that integrates a medical expense account with a wellness program. In order to receive the unused portion of the account, the employee must participate in specified wellness activites and be absent from work one day less than the average of days missed by all employees.

Several companies offer incentives for seat belt usage. Teletype Corporation in Little Rock, Arkansas, randomly checks for seat belt usage as employees enter or leave the parking lot and awards wearers with coupons for McDonald's. General Motors has given away four cars through a seat belt incentive program. Employees sign a pledge that they will wear seat belts. When a certain percent of employees is found to be wearing seat belts as determined by a random check, a drawing for a new car is held for all who have signed pledge cards.

Many companies—e.g., Holiday Inn, Sentry Insurance, and Control Data Corporation—offer material incentives, such as T-shirts, books, gym shorts, and wristwatches, for achieving a desired health outcome.

Corporate Culture That Facilitates Healthy Behavior

Experts in the field of worksite wellness recognize the importance of a supportive environment. Corporate attitudes, management styles, methods of communication, and the physical environment all influence behavior. This section discusses three components of a culture strategy; the physical environment, corporate leadership, and management style.

Physical Environment

The work setting can be altered in many ways to facilitate healthy behavior, including making available facilities that promote physical fitness. In some people's perception, the presence of these facilities is synonymous with wellness programs. However, they are not essential for a successful wellness program, and evidence is lacking regarding whether or not they stimulate behavioral change, although they clearly are a convenience for employees.

There are many ways in which the workplace can be made conducive to good health. Nutritious, low calorie or low cholesterol foods can be made available in cafeterias and vending machines, and menus can include nutritional information. There can be showers to encourage exercise, bike racks to encourage bicycle commuting, and quiet rooms for meditation and other forms of stress management. Attractive decor and noise control can enhance well-being, as can smoking restrictions that protect nonsmokers from exposure to cigarette smoke and reinforce the desirability of not smoking.

Some companies, such as Kimberly-Clark in Neenah, Wisconsin, offer a full range of exercise options at the worksite. The facility in Neenah houses a swimming pool, a running track, saunas, a whirlpool, areas for exercise classes, and weight training. It is part of a comprehensive program consisting of four components: medical screening with exercise testing, health education, aerobic exercise and cardiac rehabilitation, and an employee assistance program.

One of the most extensive physical facilities is that of Coors Industries in Golden, Cororado. A few years ago, the company purchased and renovated a Safeway supermarket, which is now a wellness center. Activities at the wellness center include an extensive physical fitness program in which about one-third of employees participate; a stress management program, which includes classroom sessions and one-on-one counseling; a weight reduction program; a smoking cessation program; an extensive alcohol education program; and nutrition counseling. Many of these activities are open to family members. Vending machines have nutritious meals, with calories and cholesterol content marked. (Free beer is available, but it is limited to light beer.)

Leadership

Corporate leaders can contribute to the acceptance of a culture that promotes positive health lifestyles by personal example and by incorporating wellness principles in policies, corporate programs, and management styles. While many corporate leaders are responsible for wellness cultures, there are a few who have been one step ahead of the crowd or willing to make an exceptional commitment.

Darwin Smith, chairman of Kimberly-Clark Corporation, was personally responsible for the recruitment of the medical director, Robert Dedmon, M.D., who pioneered the company's wellness program in Neenah, Wisconsin. The national attention received by Kimberly-Clark has led numerous companies to follow its example. James Burke, Chairman of Johnson and Johnson, declared that he wanted to have the healthiest workforce in the United States and, as a result, supported the development of the Live for Life program and encouraged J & J's commitment to sound research on the program's effects. The commitment of Thomas Frist, M.D., President of Hospital Corporation of America, to aerobic exercise led to the development of the company's aerobic financial incentive program and the building of the corporate gym. While only a fourth of the employees participate in this program, it is estimated that many more participate in other forms of wellness activities as the result of the example set by their leader. Dr. Frist is a marathon runner and is frequently seen running to and from work.

Management Style

For years, there has been controversy over which management styles generate the greatest productivity. As information increases on the relationship between stress and health, there appears to be some logic to the belief that the style of the work environment will affect health. Management style, health, and productivity are all interrelated. One component of a management style that appears to transcend the attempt to maximize productivity and foster healthy lifestyles is the degree to which employees can contribute to their jobs and to the corporation, and the amount of control they have over their environment. Examples of employee control include active participation in the design and implementation of wellness programs, quality circles and other opportunities to provide input to the design or production of a product, and employee committees that focus on improving the environment so that healthy lifestyles will be facilitated.

Dennis Colacino, the director of fitness programs at PepsiCo describes the integration of wellness into company culture in the following statement:

> Health is a reflection of our time and environment. At PepsiCo, we try to reach a philosophy that in fact reflects the time and environment. You are familiar with "Run America Run," "Catch that Pepsi Spirit," and "We've Got Your Taste For Life"—That's the emphasis of our program. Wellness is a posture in our corporation and part of our environment. It's not a fringe benefit.

PROVIDERS OF WORKSITE WELLNESS PROGRAMS

Starting in the mid-1970's, a host of organizations have targeted the workplace as a market for health promotion products. This section summarizes the efforts of some of the groups that offer worksite programs, specifically hospitals, voluntary organizations, the insurance industry, other private firms, the YMCA, and worksite wellness organizations. It also summarizes supportive efforts of foundations and coalitions.

Hospitals

The changing nature of illness, public attitudes about medical care, and competition within the medical care system have stimulated hospitals to expand their services to include wellness programs. A 1981 AHA survey showed that 53 percent of hospitals engage in some form of community health education, 59 percent provide a health education program for their own employees, and 13 percent offer services for a fee to industry (Jones 1981). The programs in the last category were wellness (9.3 percent of total), employee assistance (5.8 percent), and occupational health programs (7.2 percent). The major reasons expressed for initiating these programs were, in order, to improve community relations, to improve hospital relations with local business, and to develop a long-term revenue source.

Services designed for employers include many forms of testing services (e.g. pre-employment physicals, occupational hazard screens, fitness testing, and hypertension screening); courses that can be offered at the hospital or the worksite (e.g. stress management, exercise and physical fitness, smoking cessation, special diet programs, healthy back and proper lifting techniques, and nutrition); progams for high-risk populations such as working mothers, older workers, diabetics, and workers with sickle-cell anemia; rehabilitation; employee assistance programs; and on-the-job emergency medicine, such as cardiopulmonary resuscitation (CPR) Heimlich maneuver, crisis intervention, and how to stock a first aid station.

A 1982 AHA survey offers examples of hospital-based wellness activities that are oriented to the worksite (Bader, 1982). Overlook Hospital in Summit, New Jersey, conducts employee assistance programs for some 18,000 workers in 14 companies. The program was developed with government support from the National Institute on Alcohol Abuse and Alcoholism and was first tested on the hospital's employees. Union Hospital in Lynn, Massachusetts, has had 75 corporate and organizational clients. The most popular programs have been stress management and alcoholism. The Skokie Valley (Illinois) Community Hospital Good Health Program includes lifestyle assessments (computerized health risk assessment, physical screening, and a behavioral assessment) and health promotion workshops keyed to the results of the lifestyle assessments. Workshop topics include aerobic fitness, nutrition, weight control, stress management, smoking cessation, and cancer prevention. During periodic follow-up and evaluation, quantitative progress and impact measures compare the individual's health risk from one year to the next.

Franklin County Public Hospital in Greenfield, Massachusetts, provides occupational health and employee assistance services to 35 small employers. Lifestyle programs are planned for the near future. Pacific Medical Center in San Francisco offers a broad array of services, including CPR, worksite emergency planning, nutrition counseling, and compliance with the Occupational Health and Safety Administration (OSHA). These are provided both at the hospital and at local worksites.

Voluntary Organizations

Many voluntary agencies that formerly offered programs in the community now have taken their public education campaign and services to the worksite. Several factors have stimulated this change: many worksite programs have a track record of successfully detecting and following illness; the worksite presents a captive audience; and employers and employees contribute to many of the agencies by assisting in fund-raising drives.

For example, the Americal Lung Association provides smoking cessation assistance at the worksite through three mechanisms: courses taught by volunteers or staff members, training programs for worksite volunteers on how to conduct programs, and the distribution of the association's "Freedom From Smoking" self-help kit.

The American Cancer Society (ACS) offers a series of one-hour lectures on all forms of cancer. The series can be presented either by ACS staff members or by nurses or nonprofessional employee volunteers trained by ACS. The society also offers a smoking cessation course, which can be taught by volunteers or trained facilitators. A marketing package has been developed for volunteers to use when talking with employers about worksite cancer prevention and early screening programs. IBM and the Washington Business Group on Health have assisted in the development of these materials. A kit for corporate medical directors on how to design an internal cancer prevention and screening program has also been developed. Finally ACS hosted the 1981 conference, "Smoking OR Health". A model smoking policy emerged from the worksite segment of the conference and is being distributed to employers.

The American Heart Association offers community programs that are available at the worksite, including hypertension screening, CPR, and nutrition courses. The association plans to increase its emphasis on worksite programs. The Americian Red Cross offers a selection of courses that can be conducted at the worksite, including hypertension control, CPR, nutrition, weight control, stress management, and accident prevention. The Red Cross has also developed "Guidelines for Health Promotions Programs in the Red Cross Workplace," which was distributed to all Red Cross sites in early 1983. The March of Dimes produced a a program on birth defect prevention for working mothers. It is a self-contained kit with a manual and audiovisuals that can be used by a worksite trainer.

For each of these organizations, the programs are conducted through local affiliates and volunteers. The national association provides materials, training, and support. Programs are not offered uniformly across the nation, since resources and priorities of local affiliates vary.

The Insurance Industry

The insurance industry entered the worksite wellness movement with motivations that were similar to those of the hospital industry, i.e., to improve relations with employers as part of a marketing strategy. Social responsibility has motivated some to participate; others have accepted wellness as part of their cost-management services. Many insurance companies also have programs for their own employees.

Individual insurance company endeavors include a campaign in business publications promoting worksite wellness sponsored by the Metropolitan Life Foundation; conferences on worksite wellness (Blue Cross/Blue Shield of North Carolina); consulting services for client companies (Metropolitan Life Insurance and several Blue Cross/Blue Sheild plans); and printed materials and/or films to assist with program design and implementation (John Hancock, Prudential).

In addition to company programs, the two associations that represent the insurance industry have contributed to the worksite wellness movement. The Health Education Committe of the Health Insurance Association of America (HIAA) has helped foster individual company efforts by producing a booklet on the economic benefits of worksite wellness programs and by launching a smoking cessation initiative. This initiative entails the development of a model plan to reduce smoking, which will be implemented by the HIAA member carriers. These carriers will then assist client companies that want to implement the program. The HIAA, in cooperation with the American Council of Life Insurers, is also conducting an educational program for chief executive officers on the benefits of wellness programs. The program includes an audiovisual presentation highlighting corporate chairmen discussing the benefits of their programs.

The Blue Cross and Blue Shield Association provides member plans with assistance in developing worksite wellness programs for their own employees and subscribing companies. The association surveyed plan activity in 1982 and found that almost all of the plans are involved in some form of worksite wellness.

Other Private Firms

Like hospitals, insurance companies, and voluntary agencies, a variety of private firms have targeted employers as a market for wellness products. Products include comprehensive wellness programs that can be delivered nationally on-site (Control Data's STAYWELL Program); physical testing with courses and wellness activities in a resort setting (the Houstonian and the Sun Valley Institute); workbook programs (Bull Publishing); employee assistance programs (Human Affairs, Inc.); and courses and seminars on a large selection of topics sold by numerous individuals and businesses.

The Young Men's Christian Association (YMCA)

The YMCAs offer wellness programs to employers at many locations. The National YMCA Association also developed a working relationship with IBM to assist all of the company's facilities nationally to implement its Plan for Life program. Many local YMCAs have also developed relationships with employers ranging from offering discounts for group purchases to coordinating a comprehensive wellness program that includes the use of other local resources. Many YMCAs have full-time staff devoted to worksite programs.

Worksite Wellness Organizations

Few national business organizations have made the promotion of worksite wellness a priority. One exception is the Washington Business Group on Health, which, starting in the mid-1970s, has promoted the concept as an integral part of a corporate health strategy. Also, the Association for Fitness in Business promotes the expansion and improvement of worksite wellness through its 2000 members.

In addition, several local organizations were formed in the early 80's for the specific purpose of promoting worksite wellness programs. One example is the Wellness Council of the Midlands, an organization of companies in Omaha, Nebraska that are combining resources to help other companies start and improve local programs. They produce a monthly newsletter, conduct seminars, and provide technical assistance. They have also produced and are airing a televised public service announcement. Another example is the San Diego Wellness at the Workplace project, conducted jointly by the California Governor's Council on Wellness and Physical Fitness and the San Diego Chapters of the American Heart Association and the Association for Fitness and Business. The project is designed to enhance the quality of worksite wellness programs by coordinating local resources.

Foundations

Some foundations have funded worksite wellness program development or evaluation. The W.K. Kellogg foundation is funding the evaluation of the effectiveness of the wellness programs of Blue Cross of Indiana and Blue Cross and Blue Shield of Michigan. The foundation is also funding two community-based wellness programs that target the worksite for program implementation in Seattle, Washington and Williamsport, Pennsylvania.

Coalitions

More than two-thirds of the coalitions rank health education among their top five priorities. This is true regardless of the coalition's composition or stage of formation. Health education efforts include communication programs to assist employees in using their medical benefits prudently as well as improving their health. Health education has not fully evolved yet, because most coalitions have as the top priority either developing a utilization data base or activist program like health planning. However, wellness has been the subject of seminars and conferences for several coalitions, such as the New York Business Group on Health. As another example, the Lehigh Valley Business Group on Health has developed a four-component strategy to assist members in the development of wellness programs: (1) a conference for local wellness organizations to determine the services that they offer business, (2) a seminar for business leaders on the rationale for implementing wellness programs, (3) a series of seminars on specific methods for implementing wellness programs, and (4) an ongoing resource center that distributes up-to-date information and houses a lending library.

EVIDENCE OF EFFECTIVENESS

The growth of worksite wellness programs, despite the dearth of scientifically valid evaluation, indicates that many employers believe in the concept's intrinsic value. Those who have initiated programs appear to be satisfied with the logic that healthier workers will be more productive workers. However, the increase in providers and programs has increased the need to discover which approaches will yield the greatest results. This information would assist an employer who wishes to make a commitment to wellness yet has concerns about the best way of spending limited resources. These limited resources are, however, one reason why more scientifically valid information does not exist. Most companies would rather devote funds to programs than to expensive evaluations.

There are several other factors that inhibit the evaluation of worksite wellness. Most worksite wellness programs that have been operational for more than a few years did not identify specific goals initially or adopt an evaluation strategy. Also, a company may have a multiplicity of goals, and employee morale, which is very difficult to quantify, may be as important as reduced medical, disability, on-the-job accident, turnover, or absenteeism costs. Although many programs can relate outcomes to change in knowledge, behavior, attitudes or physical measurements, few evaluations to date can relate these changes to actual cost savings. Many of the measures that would logically be included in a cost-benefit evaluation are absent in most companies. For example, few companies track medical utilization for specific individuals. Many do not have comprehensive statistics on sick leave and, instead, only collect long term absence data (five to ten consecutive workdays). Also, quantifiable measures of productivity are difficult to obtain. However, as corporate medical and personnel data systems improve, so does the ability to evaluate wellness programs.

Another difficulty is posed by the problem of developing valid control groups, since most companies will not deny programs to a control population for the purpose of evaluation. It is also a fact that carefully designed evaluation is expensive. Most corporate leaders who have made a commitment to wellness programs are satisfied that their investment is worthwhile and do not wish to expend the additional resources to find out exactly what the program has accomplished.

Two companies, Johnson & Johnson and Control Data Corporation, are making financial commitments to conduct scientifically valid evaluations that will help all companies understand the merits of wellness programs and determine which components produce the desired outcomes. These are discussed below, followed by a summary of some other studies.

Johnson & Johnson—Live for Life

Objectives of the Johnson & Johnson program include improvements in nutrition, weight control, stress management, fitness, smoking cessation, and health knowledge. Also, the proper utilization of such medical interventions as high blood pressure control and the employee assistance program is strongly encouraged. Employees are provided with a health risk screen and have the opportunity to participate in health enhancement programs at the worksite. Also, employee task forces are responsible for creating a work environment that supports positive health practices.

An essential element of the program is the annual health screen, which is available to all employees. The screen includes biometric variables (blood lipids, blood pressure, body fat, weight, and estimated maximum oxygen uptake), behavioral variables (smoking, alcohol use, physical activity, nutrition practices, coronary behavior pattern), and attitudinal measures (general well-being, ability to handle job stress, personal relations, organizational commitment, and job involvement).

Control groups were established for the evaluation. some 2,100 employees at four Johnson & Johnson facilities with the Live for Life program were compared with 2,000 employees at locations without the program. The evaluation protocol compares the baseline screening results with the findings from two subsequent years. The first report was issued in late 1981 and is the source of the figures below. Results of the second year's comparison will be released in October 1984.

Significant findings of behaviorial changes include a 43 percent increase in aerobic calories burned measured in kilograms per week in the Live for Life population (the treatment sites) compared with a 6 percent increase in the control group, a 15 percent decrease in smoking at the treatment sites compared to a 4 percent decrease at the control sites, and a 1 percent decrease in the percentage of the population that is above ideal weight compared to a 6 percent increase in the control group. There was also a 32 percent reduction in the percentage of the Live for Life population with elevated blood pressure compared with a 9 percent decrease at the control site, despite the absence of a program designed specifically for hypertension control.

The evaluation also measured changes in self-reported sick days and attitudes, as shown here:

Measure	*Treatment* N = 727	*Control* N = 680
Self-reported sick days	-9%	14%
Satisfaction with working conditions	3	-7
Satisfaction with personal relations at work	1	-3
Ability to handle job strain	0	-2
Job involvement	2	0
Commitment to the organization	0	-2
Job self-esteem	0	-2
Satisfaction with growth opportunities	-1	-3

A preliminary study of the impact of the Live for Life program on medical utilization is also underway.

Control Data STAYWELL

STAYWELL was initiated in 1979 and is currently available to 22,000 Control Data employees and their spouses as a free employee benefit (Naditch, in press). It is also marketed to other companies as a commercial venture. Participation among Control Data employees ranges between 65 and 95 percent at the various site locations. The program includes a confidential health risk profile with a workshop to interpret the results, a health screen, one-hour overview courses on lifestyle and health, and comprehensive sessions given over periods of several weeks dealing with smoking cessation, stress management, weight control, nutrition, and fitness. Control Data also has employee participation groups that attempt to alter the work environment to promote healthy lifestyles, as does Johnson & Johnson.

Data for the evaluation are collected primarily through a survey administered to a 10 percent sample of all domestic Control Data employees (approximately 5,000 people). Employees at STAYWELL locations are compared to those at locations without the program. Respondents in the STAYWELL group are also subdivided based on whether they are nonparticipants; health risk profile participants only; participants in other activities but not in the extensive lifestyle classes; or participants in the lifestyle change course.

Control Data reports several positive effects. For example, smokers enrolled in the smoking cessation course smoked an average of 1.6 packs per day at the start of the course. Twelve months after the course, 30.3 percent were not smoking, 43.5 percent were smoking less than one pack per day, and 24.2 percent smoked one or more packs per day.

The evaluation also determined that people with poor health habits are 86 percent more likely to miss work and 100 percent more likely to limit the amount of work they do. They are also more likely to take prescription drugs. Finally, the Control Data evaluation confirmed the relation between health habits and health care benefit payments. For example, current smokers and those who quit less than five years earlier generated 25 percent more benefit payments and twice the number of hospital days as those who either never smoked or quit within the previous five years. Also, sedentary individuals experienced a claims cost that averaged $436.92 and .57 hospital days compared with $321.01 and .37 hospital days for the more active people.

Other Studies

There are also less scientifically valid studies that offer some indication of the benefits of worksite wellness programs. The most convincing of these relate to hypertension and smoking cessation. According to Jonathan Fielding, M.D., based on a review of available research,

> A voluntary on-site [hypertension] screening, referral, and follow-up program at the home office of Massachusetts Mutual Life Insurance Company led to an increase in the percentage under control from 36 percent to 82 percent after one year of operation.
>
> In a three-site industrial hypertension screening, detection, and follow-up program, 92 percent of 120 auto workers, 138 sanitation workers and 106 postal workers referred for high blood pressure saw their physician, and 93 percent of those seeing a physician had treatment initiated. Of those initiating treatment, about 84 percent showed progress towards control. In 28 Chicago-area hypertensive employees who attended a special high blood pressure control clinic near their work place, average diastolic blood pressure fell from 102.6 mm Hg at first screening and 98.8 mm Hg at second screening to 83.1 mm Hg at the end of the first year. (Fielding 1982)

Fielding also reports that smoking cessation programs at the worksite have achieved a 40–60 percent abstinence rate over a 6–12 month period, compared to 15–30 percent abstinence rate achieved through community programs.

For many employers, less rigorous evaluation of the positive impact that wellness programs can have on problems like absenteeism, turnover, and on-the-job accidents have been sufficient to gain their support. Some of the studies have estimated actual cost savings as a result of wellness strategies. However, we are not in a position to pass judgment on the validity of the results reported. Furthermore, companies may be more willing to report successes rather than failures.

New York Telephone, which has 80,000 employees, estimates an annual savings of $663,000 from its hypertension control program, $1,565,000 from its alcohol control program, $269,000 from its breast cancer screening program, $302,000 from its back treatment program, and $268,000 from its stress management program (Wood, 1980). The Occidental Life Insurance Company and Northern Natural Gas Company report reduced absenteeism as a result of a fitness program. Canada Life Assurance found that program participants had a 1.5 percent turnover rate compared to a 15 percent rate for employees who did not participate. Forty-seven percent of fitness program participants reported that they were more alert, enjoyed their work more, and had better rapport with co-workers and supervisors since the program began. The National Aeronautics and Space Administration and the New York State Education Department have reported positive benefits in employee attitude, general sense of well-being, and reduction in absences as the result of fitness programs.

Kimberly-Clark reports a 70 percent reduction in on-the-job accidents among its EAP participants. The General Motors EAP has been used by 44,000 people in 130 locations. The company reports decreases among program participants of 40 percent in lost time, 60 percent in sickness and accident benefits, 50 percent in grievances, and 50 percent in on-the-job accidents (Berry 1981). Other cost savings from EAPs are shown in Table 3.

ISSUES

Any field that is expanding as rapidly as is worksite wellness raises a number of complex and controversial issues that will take time to resolve. The most significant issue, evidence of effectiveness, was addressed in the last section. This section discusses five other issues: confidentiality, illness liability, product line conflict of interest, competition and quality control, and the ethics of early detection.

Confidentiality

Both individual employees and union leaders have expressed concern about the confidentiality of health information. This issue encompasses information on medical claims, medical data collected during examinations, data from special services such as employee assistance programs and other forms of mental health treatment, and risk analysis collected through assessment tools. The concern is that this information may be misused in decisions about promotion, job assignment, or termination.

TABLE 3: Cost Savings Reported for Some Employee Assistance Programs (EAPs)

Company	*Number of employees*	*Number using EAP*	*Rehabilitation rate %*	*Annual cost savings*
University of Missouri	7,000	1,002	80	$ 67,996[a]
Scovill Manufacturing	6,500	180	78	186,550
Illinois Bell Telephone	38,490	1,154	80	254,448[b]
(family)		100		
U.S. Postal Service	83,000	?	75	2,221,362
Kennecott Copper	7,000	1,200/yr	0	448,400[c]
(w/dependents)	28,000			
New York Transit	13,000	?	75	2,000,000
E.I. DuPont (with spouses)	16,000	176/yr.	70	419,200[d]
New York Telephone	80,000	300/yr	85	1,565,000

Source: Charles A. Berry, *Good Health for Employers and Reduced Health Care Costs for Industry* (Washington, DC: Health Insurance Association of America, 1981), 28.

[a] Plus a 40% decrease in use of health benefits.

[b] 31,806 disability days were saved and off-duty accidents decreased 42.2% and on-duty accidents decreased 61.4%. There were also savings in health insurance utilization and job inefficiency.

[c] The total included absenteeism, sickness and accident disability, and health insurance use. Absenteeism decreased 53%, weekly indemnity costs (sick accident) 75%, and medical costs 55%. The rehabilitation rate was not calculated. A conservative calculation found a $5.78 return on $1.00 invested in the program.

[d] Alcohol program only.

While it is generally agreed that employers should not have direct access to a given individual's health data, there are several benefits to both employees and employers from the companies receiving aggregate information. These include the ability to tailor interventions to meet actual need, to evaluate program effectiveness, and to spot unusual occurrences of illness or risks so that environmental causes can be detected. There are also instances in which information on individuals can be valuable. For example, preplacement physical examinations are conducted to determine whether someone is capable of handling a specific job, raising the issue of what constitutes being capable. One issue is whether companies should be allowed to screen employees for stress tolerance when placing them in a stressful job.

There appears to be a fine line between protecting the individual and protecting the company. As risk detection becomes more advanced through such methods as genetic screening, this issue will become more controversial. Current mechanisms of protecting individual data include: sending the results of screenings and risk assessments to employees at home and to the physician of their choice if requested; contracting with outside organizations, which in turn provide the company with aggregate data only; and establishing policies stipulating that only program staff will have access to information on individuals.

Illness Liability

Another complex issue is the determination of responsibility for illness caused or exacerbated by potentially controllable behavior, such as smoking. There is considerable professional debate about the degree to which many risk factors are controllable, especially for those at greatest risk, i.e., the heavily addicted smoker. Further, when someone hurts himself at play, or even when drunk, there is no suggestion that the price of recovery should be any different from that for unavoidable illness or injury. There is no clear definition of what constitutes illness that is wholly lifestyle dependent. Another aspect of this issue is the division of responsibility between employer and employee when the former provides a less than safe work environment and the latter knowingly adds to the problem by, for example, smoking. Coke oven, asbestos, and cotton dust exposure cases are often complicated by this dilemma.

Product Line Conflicts of Interest

Producers of products that are known health risks are forced to trade off the enhancement of their employees' health against the promotion of their product. The tobacco industry illustrates this point. The surgeon general has singled out smoking as the most preventable cause of death in the United States. However, most cigarette producers encourage their own employees to smoke by giving them free cigarettes, by not having nonsmoking areas, and by not offering smoking cessation assistance.

A classic example of this problem was recently reported in the *Wall Street Journal* (March 31, 1983). Heublein Inc., a liquor and food company, had designated smoking and nonsmoking sections at meetings. After they were acquired by R.J. Reynolds Industries, the nation's largest cigarette maker, the practice was stopped. A spokesman for Heublein explained, "We are owned by a company that has a significant position in the tobacco industry. We don't encourage employees to smoke, but we don't discourage them either."

Competition and Quality Control

The wellness movement is being pulled in conflicting directions. From one side come pressures demanding quality standards, an educational background tied to licensure, relative effectiveness measures, and all the trappings of an organized service delivery profession. Graduate degree programs are opening; reimbursement is increasingly available for selected services of wellness providers; corporate staffs are growing; and the skills of yesterday's narrowly focused fitness experts are expanding to include many aspects of health, medicine, education, and communication.

At the same time, physicians are looking for new areas of practice as a result of increasing supply and are entering the wellness market. In some cases, they are attempting to control the market by requiring a physician's authorization before participation in a fitness program or by linking reimbursement for smoking and weight reduction programs to doctors' orders.

The competition among providers is requiring purchasers to become increasingly more sophisticated so that they can make rational selections. It also requires greater effort to evaluate alternative programs and approaches.

Ethics of Early Detection

Early detection programs based upon increasingly elaborate screening have gained considerable acceptance in industry. Along with the obvious advantages of discovering a potentially serious (and expensive) illness at a stage when prevention can be effective, these screenings pose some challenging ethical problems.

For example, screenings given without a one-on-one educational session can contribute to anxiety and confusion, or to a false confidence, depending on the reported results. False positives are so frequent in some of the tests that high costs can result from the need to retest. In addition, there is otherwise unnecessary utilization and the risks associated with false positives. Finally, their psychological impact is almost impossible to measure, but all one has to do is to consider being told that one may have cancer and then waiting a week to get the results of a retest.

Screening often demonstrates that selected physician services, psychological counseling, nutritional and other lifestyle changes, or new drug therapies would contribute to prevention. However, these are also often the very services and providers for which the company insurance plan provides no reimbursement. One solution is to offer an increasing array of in-house preventive services to assure that appropriate follow-up is not hindered by economic constraints that would not apply to acute care services.

As described in the discussion above on confidentiality, there is a fear by some employees and unions that the results of screenings will be used by management for hiring, firing, and job assignment decisions, rather than for the provision of preventive care. Also, screening can identify a health problem and establish that its cause is the worksite itself, and some firms are more willing to screen than they are to correct the problems that are discovered. Only a major commitment by management and labor can bring about the needed changes to the physical environment and or corporate culture that will result in the prevention of future illness.

CONCLUSION

In 1970, only a handful of U.S. employers had initiated any programs that emphasized health promotion and disease prevention. By 1980, it would be conservative to say that 50 percent of the larger companies had established one or more programs called wellness. Today, worksite wellness programs are expanding in prevalence, in comprehensiveness, and in sophistication. Increasingly, smaller employers, public sector employers, unions, nonprofit sector employers, and hospitals are offering wellness programs or facilitating access to community services. This phenomenon mirrors the growth in general public commitment to healthier lifestyles and concern for the escalation of medical care costs.

The expansion of worksite wellness programs has not been based on data that demonstrate the financial return of the program, although some evidence does suggest that this can be one outcome. Rather, the expansion has emanated from the cultural acceptance of the changing nature of illness, greater understanding of limitations of the medical system, and the awareness that health can be promoted through behavioral and environmental changes.

As programs become more sophisticated, they will bring more cultural changes into the workplace. Many aspects of the changing society, such as family structure, values, and available resources, are already being integrated into the work environment. This can be seen through the development of day care centers, extended leave programs, retirement programs, programs for older workers, programs for working parents, flextime, and the greater development of part-time working arrangements. The work setting is becoming more humanistic in nature and is focusing more on self-responsibility. Self-responsibility is the backbone of the wellness programs but can only be achieved if the environment, particularly the work environment, facilitates the behaviors that will achieve optimal health.

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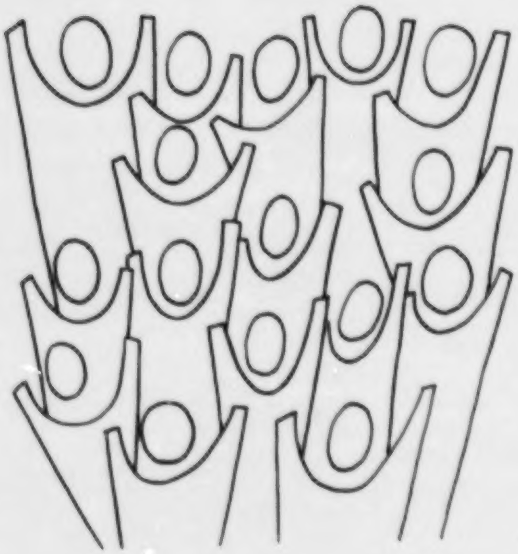

Section 4: Background Papers

Involving the Schools in the National Strategy to Improve the Health of Americans

The National Strategy to Improve the Health of Americans

The causes of illness and death today are vastly different from those of the early part of the century. This dramatic shift in disease patterns (Table 1) has been called the first public health revolution. That revolution occurred largely as a result of scientific research that led us to understand and control the biological and environmental risk factors associated with infectious diseases. As a result, we have been able to control major infectious diseases to the point where non-infectious (or chronic) diseases and traumatic injuries caused by violent means (i.e., accidents, suicides, homicides) have become the major health problems of our time.

Research conducted through the 1960s and 1970s led us to understand risk factors associated with chronic diseases and forms of violence (Table 2). Because the vast majority of these risk factors are behavioral in nature, the death and illness they cause can be reduced through systematic efforts to effectively inform our population about such risks and means to decrease them.

The Nation's schools provide an appropriate and efficient vehicle by which our population could be educated about increasingly complex risks to their health and well-being, and about individual and societal means available to control such risks. Since 1909, schools have been called upon by numerous agencies of society to provide timely and effective health education for our young people (1-24). Indeed, the need to educate our young about means to maintain and improve their health has never been more urgent. Although death rates consistently have declined for all other age groups since 1900, death rates actually have increased for young people (15-24 years of age) to the point where they now suffer a rate higher than those the same age did twenty years ago.

TABLE 1: Causes of Death in the United States

Rank	*1900*	*1981**
1	Influenza & pneumonia	Heart diseases
2	Tuberculosis	Cancers
3	Gastroenteritis	Strokes
4	Heart diseases	All accidents

*National Center for Health Statistics. *Monthly Vital and Health Statistics* 30(13), 1982.

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This paper was prepared, in part, by Glen G. Gilbert during his tenure as Assistant Director, School Programs for the U.S. Office of Disease Prevention and Health Promotion in the Office of the Assistant Secretary for Health. However, no official endorsement of this paper by the U.S. Department of Health and Human Services is intended or should be inferred.

TABLE 2: Prominent Controllable Risk Factors

Cause of Death (1977)	*Risk Factors*
Heart disease	Smoking, high blood pressure, elevated serum cholesterol, diabetes, obesity, lack of exercise, type A behavior
Cancers	Smoking, alcohol, solar radiation, ionizing radiation, worksite hazards, environmental pollution, medications, infectious agents, diet
Stroke	High blood pressure, cardiac function
Accidents, other than motor vehicle	Alcohol, smoking (fires), product design, home hazards, handgun availability
Influenza/pneumonia	Vaccination status, smoking
Motor vehicle accidents	Alcohol, no safety restraints, speed, automobile design, roadway design
Diabetes	Obesity (for adult-onset)
Cirrhosis of liver	Alcohol
Suicide	Handgun availability, alcohol or drug misuse, (stress)
Homicide	Handgun availability, alcohol, (stress)

SOURCE: Modified from J. Michael McGinnis, Targeting Progress in Health, *Public Health Reports*, 97(4) 298, 1982.

During the 1970s, the Federal government recognized that this shifting pattern of disease causation among all age groups in the United States required a national strategy to systematically reduce the risks to the health of Americans. In 1979, the U.S. Department of Health, Education and Welfare released a landmark document titled *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention* (25). This document was important for two reasons. First, it chronicled lifestyle behaviors that profoundly influence the health of our population. Second, it signaled that the Federal government would take the lead in attempting to reduce, between 1980 and 1990, deaths and illnesses among the five major age groups by specific percentages (Table 3).

In order to achieve the Surgeon General's goals, the report delineated 15 health problem areas (Table 4) and set out measurable objectives to reduce health problems in each of these areas. Thus, in 1980 the U.S. Department of Health and Human Services published 227 measurable objectives to be attained by 1990 in the document *Promoting Health/Preventing Disease: Objectives for the Nation* (26). *Public Health Service Implementation Plans for Attaining the Objectives for the Nation* (27) subse-

TABLE 3: Surgeon General's Goals for 1990

Life Stage	*1990 Goal*	*Special Problems*
Infants	35% fewer deaths* (less than 9/1000 births)	low birth weight infants birth defects
Children (ages 1-14)	20% fewer deaths* (less than 34/100,000)	growth and development accidents and injuries
Adolescents and young adults (ages 15-24)	20% fewer deaths* (less than 93/100,000)	fatal motor vehicle accidents alcohol and drug misuse
Adults (ages 25-64)	25% fewer deaths* (less than 400/100,000	heart attacks and strokes cancer
Older adults (ages 65+)	20% fewer days restricted* (less than 30/year)	influenza and pneumonia ability to function independently

*Relative to 1977

SOURCE: U.S. Department of Health, Education and Welfare. *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention.* Washington, D.C.: U.S. Government Printing Office, 1979.

TABLE 4: Fifteen Priority Areas: 1990 Health Objectives for the Nation

Preventive Health Services
1 HIGH BLOOD PRESSURE CONTROL
2 FAMILY PLANNING
3 PREGNANCY AND INFANT HEALTH
4 IMMUNIZATION
5 SEXUALLY TRANSMITTED DISEASES
Health Protection
6 TOXIC AGENT CONTROL
7 OCCUPATIONAL SAFETY AND HEALTH
8 ACCIDENT PREVENTION AND INJURY CONTROL
9 FLOURIDATION AND DENTAL HEALTH
10 SURVEILLANCE AND CONTROL OF INFECTIOUS DISEASES
Health Promotion
11 SMOKING AND HEALTH
12 MISUSE OF ALCOHOL AND DRUGS
13 NUTRITION
14 PHYSICAL FITNESS AND EXERCISE
15 CONTROL OF STRESS AND VIOLENT BEHAVIOR

SOURCE: U.S. Department of Health and Human Services. *Promoting Health/Preventing Disease: Objectives for the Nation*, Washington, D.C.: U.S. Government Printing Office, 1980.

quently were published in 1983. An essential element of the "management by objective" strategy was recognized from the very beginning—namely, that the initiative would require active participation of relevant public and private agencies at local, State, and national levels.

Numerous public and private health agencies, including State and local health departments, voluntary health organizations, professional health associations, and schools for the health professions, are collaborating to achieve the national health objectives (28). However, given the significance of behavioral risks to the health of our population, it is critical that our Nation's educational system also become significantly involved. Indeed, of the 227 objectives, fully 67 (or about 30 percent) could be attained directly or indirectly by the Nation's schools (29) (Table 5). Some of these objectives can be attained through appropriate school health services, efforts to ensure a healthy school environment, and school physical education programs that improve cardiovascular fitness. The great majority, however, can be attained through education programs that address personal health, mental and emotional health, prevention and control of disease, nutrition, substance use and abuse, accident prevention and safety, community health, consumer health, environmental health, and family life education (30).

The Role of the Nation's Schools in Improving the Health of Americans

Although major health and education organizations throughout the United States consistently have called for the establishment and improvement of health education programs in schools, the 1973 *Report of the President's Committee on Health Education* concluded that "...school health education in most primary and secondary schools is not provided at all, or loses its proper emphasis because of the way it is tacked onto another subject such as physical education or biology, assigned to teachers whose interests and qualifications lie elsewhere (18)." Hearings conducted by the President's Committee confirmed the conclusions of an earlier study of health education practices in a national sample of school systems, which found a "...majority of situations where health instruction is virtually non-existent or where prevailing practices can be legitimately challenged. What passes for a program in far too many instances is dubious (31)."

The five functions that the national health objectives serve for health agencies might also facilitate the development of focused and coordinated school health education programs by education agencies. *First*, the national objectives can provide a mechanism for education professionals and health professionals in a given locale to approach accord about the most important health objectives to be pursued within their school systems. *Second*, selected health objectives in turn can provide a means for focusing public and private health and education resources on problems agreed to be of highest priority. *Third*, selected objectives can serve to facilitate coordinated efforts to attain commonly held objectives among education and health agencies, both in the public and private sectors. *Fourth*, since they are written to be measurable, the objectives can provide a means for assessing the progress of school efforts in attaining priority objectives. *Fifth*, since they are written as clear and simple statements of expected outcomes, the objectives can help define the parameters and intended outcomes of school health education efforts for education and health decision-makers and their constituencies. Thus, the national health promotion and disease prevention strategy might serve as one mechanism to establish and improve health education programs in schools.

School administrators, however, are besieged with problems caused by declining enrollments, shrinking tax bases to support education, perceived diminishment in the competencies of teachers, demand for a return to "basics," demand for increased accountability, and demand by numerous content advocates for increased time in the curriculum to address various subjects of interest. Many administrators have been little inclined to appropriate curricular resources for health education, since there often is little concerted demand for comprehensive health education by

(text continues on page 63)

TABLE 5: Objectives for the Nation That Can Be (a) Directly Attained or (b) Influenced in Important Ways by Schools

(A) *High Blood Pressure Control*

- *Increased public/professional awareness via school health education* (a)
  1. By 1990, at least 50 percent of the adults should be able to state the principal risk factors for coronary heart disease and stroke, i.e., high blood pressure, cigarette smoking, elevated blood cholesterol levels, diabetes.
  2. By 1990, at least 90 percent of adults should be able to state whether their current blood pressure is normal (below 140/90) or elevated, based on a reading taken at the most recent visit to a medical or dental professional or other trained reader.

(B) *Family Planning*

- *Increased public/professional awareness via school health education* (a)
  3. By 1990, at least 75 percent of men and women over the age of 14 should be able to describe accurately the various contraceptive methods, including the relative safety and effectiveness of one method versus the others.
- *Reduced risk factors objectives that could be influenced by school health programs* (b)
  4. By 1990, there should be virtually no unintended births to girls 14 years old or younger. Fulfilling this objective would probably reduce births in this age group to near zero.
  5. By 1990, the fertility rate for 15-year-old girls should be reduced to 10 per 1,000.
  6. By 1990, the fertility rate for 16-year-old girls should be reduced to 25 per 1,000.
  7. By 1990, the fertility rate for 17-year-old girls should be reduced to 45 per 1,000.
  8. By 1990, reductions in unintended births among single American women (15 to 44 years of age) should reduce the fertility rate in this group to 18 per 1,000.
  9. By 1990, the proportion of abortions performed in the second trimester of pregnancy should be reduced to 6 percent, thereby reducing the death-to-case rate for legal abortions in the United States to 0.5 per 100,000.
  10. By 1990, the availability of family planning information methods (education, counseling and medical services) to all women and men should have sufficiently increased to reduce by 50 percent the disparity between Americans of different economic levels in their ability to avoid unplanned births.

Table 5, continued

(C) *Pregnancy and Infant Health*

- *Increased public/professional awareness via school health education* (a)
  11. By 1990, 85 percent of women of childbearing age should be able to choose foods wisely (state special nutritional needs of pregnancy) and understand the hazards of smoking, alcohol, pharmaceutical products and other drugs during pregnancy and lactation.

(D) *Immunization*

- *Improved services/protection via school health services* (a)
  12. By 1990, at least 95 percent of children attending licensed day care facilities and kindergarten through 12th grade should be fully immunized.
- *Improved surveillance/evaluation systems via school health services* (a)
  13. By 1990, at least 95 percent of all children through age 18 should have up-to-date official immunization records in a uniform format using common guidelines for completion of immunization.
- *Improved health status objectives that could be influenced by school health programs* (b)
  14. By 1990, reported measles incidence should be reduced to less than 500 cases per year—all imported or within two generations of importation.
  15. By 1990, reported mumps incidence should be reduced to less than 1,000 cases per year.
  16. By 1990, reported rubella incidence should be reduced to less than 1,000 cases per year.
  17. By 1990, reported congenital rubella syndrome incidence should be reduced to less than 10 cases per year.
  18. By 1990, reported diphtheria incidence should be reduced to less than 50 cases per year.
  19. By 1990, reported pertussis incidence should be reduced to less than 1,000 cases per year.
  20. By 1990, reported tetanus incidence should be reduced to less than 50 cases per year.
  21. By 1990, reported polio incidence should be less than 10 cases per year.

(E) *Sexually Transmitted Diseases*

- *Increased public/professional awareness via school health education* (a)
  22. By 1990, every junior and senior high school student in the United States should receive accurate, timely education about sexually transmitted diseases.

(table continues)

Table 5, continued

- *Improved health status objectives that could be influenced by school health programs* (b)
  23. By 1990, reported gonorrhea incidence should be reduced to a rate of 280 cases per 100,000 population.
  24. By 1990, reported incidence of gonococcal pelvic inflammatory disease should be reduced to a rate of 60 cases per 100,000 females.
  25. By 1990, reported incidence of primary and secondary syphillis should be reduced to a rate of 7 cases per 100,000 population per year, with a reduction of congenital syphillis to 1.5 cases per 100,000 children under 1 year of age.
  26. By 1990, the incidence of nongonococcal urethritis and chlamydial infections should be reduced to a rate of 770 cases per 100,000 population.

(F) *Toxic Agent Control*

- *Increased public/professional awareness via school health education* (a)
  27. By 1990, at least half of all people ages 15 years and older should be able to identify the major categories of environmental threats to health and note some of the health consequences of those threats.

G) *Occupational Safety and Health*

- *None that can be addressed by schools*

(H) *Accident Prevention and Control*

- *Improved health status objectives that can be influenced by school health programs* (a)
  28. By 1990, the proportion of parents of children under age 10 who can identify appropriate measures to address the three major risks for serious injury to their children (i.e., motor vehicle accidents, burns, poisonings) should be greater than 80 percent.
- *Improved health status objectives that can be influenced by school health programs* (b)
  29. By 1990, the motor vehicle fatality rate for children under 15 should be reduced to no greater than 5.5 per 100,000 children.
  30. By 1990, the home accident fatality rate for children under 15 should be no greater than 5.0 per 100,000 children.

(I) *Fluoridation and Dental Health*

- *Increased public/professional awareness via school health education* (a)
  31. By 1990, at least 95 percent of school children and their parents should be able to identify the principal risk factors related to dental diseases and be aware of the importance of fluoridation and other measures in controlling these diseases.
  32. By 1990, at least 75 percent of adults should be aware of the necessity for both thorough personal oral hygiene and regular professional care in the prevention and control of periodontal disease.
  33. By 1990, at least 65 percent of school children should be proficient in personal oral hygiene practices and should be receiving other needed preventive dental services in addition to fluoridation.
- *Improved services/protection via efforts to ensure a healthy school environment* (a)
  34. By 1990, at least 50 percent of school children living in fluoride-deficient areas that do not have community water systems should be served by an optimally fluoridated school water supply.
- *Reduced risk factors that can be directly controlled by schools* (a)
  35. By 1990, no public elementary or secondary school (and no medical facility) should offer highly cariogenic foods or snacks in vending machines or in school breakfast or lunch programs.
  36. By 1990, virtually all students in secondary schools and colleges who participate in organized contact sports should routinely wear proper mouth guards.
- *Improved health status objectives that can be influenced by school health programs* (b)
  37. By 1990, the proportion of nine-year-old children who have experienced dental caries in their permanent teeth should be decreased to 60 percent.
  38. By 1990, the prevalence of gingivitis in children 6 to 17 years should be decreased to 18 percent.

(J) *Surveillance and Control of Infectious Diseases*

- *None that can be addressed by schools*

(K) *Smoking and Health*

- *Increased public/professional awareness via school health education* (a)
  39. By 1990, the share of the adult population aware that smoking is one of the major risk factors for heart disease should be increased to at least 85 percent.
  40. By 1990, at least 90 percent of the adult population should be aware that smoking is a major cause of lung cancer, as well as multiple other cancers including laryngeal, esophageal, bladder and other types.
  41. By 1990, at least 85 percent of the adult population should be aware of the special risk of developing and worsening chronic obstructive lung disease, including bronchitis and emphysema, among smokers.
  42. By 1990, at least 85 percent of women

(table continues)

Table 5, continued

should be aware of the special health risks for women who smoke, including the effect on outcomes of pregnancy, and the excess risk of cardiovascular disease with oral contraceptive use.

43. By 1990, at least 65 percent of 12 year olds should be able to identify smoking cigarettes with increased risk of serious disease of the heart and lungs.

- *Reduced risk factors that can be influenced by school health programs* (b)
  44. By 1990, the proportion of adults who smoke should be reduced to below 25 percent.
  45. By 1990, the proportion of women who smoke during pregnancy should be no greater than one half the proportion of women overall who smoke.
  46. By 1990, the proportion of children and youth aged 12 to 18 years old who smoke should be reduced to below 6 percent.

(L) *Misuse of Alcohol and Drugs*

- *Increased public/professional awareness via school health education* (a)
  47. By 1990, the proportion of women of childbearing age aware of risks associated with pregnancy and drinking, in particular, the fetal Alcohol Syndrome, should be greater than 90 percent.
  48. By 1990, the proportion of adults who are aware of the added risk of head and neck cancers for people with excessive alcohol consumption should exceed 75 percent.
  49. By 1990, 80 percent of high school seniors should state that they perceive great risk associated with frequent regular cigarette smoking, marijuana use, barbiturate use or alcohol intoxication.
- *Reduced risk factors that can be influenced by school health programs* (b)
  50. By 1990, the proportion of adolescents 12 to 17 years old who abstain from using alcohol or other drugs should not fall below 1977 levels.
  51. By 1990, the proportion of adolescents 14 to 17 years old who report acute drinking-related problems during the past year should be reduced to below 17 percent.
  52. By 1990, the proportion of adolescents 12 to 17 years old reporting frequent use of other drugs should not exceed 1977 levels.

(M) *Nutrition*

- *Increased public/professional awareness via school health education* (a)
  53. By 1990, the proportion of the population which is able to identify the principal dietary factors known or strongly suspected to be related to disease should exceed 75 percent for each of the following diseases: heart disease, high blood pressure, dental caries, and cancer.

Table 5, continued

  54. By 1990, 70 percent of adults should be able to identify the major foods which are low in fat content, low in sodium content, high in calories, and good sources of fiber.
  55. By 1990, 90 percent of adults should understand that to lose weight people must either consume foods that contain fewer calories or increase physical activity—or both.
  56. By 1990, all States should include nutrition education as part of required comprehensive school health education at elementary and secondary levels.
- *Improved services/protection via efforts to ensure a healthy school environment* (a)
  57. By 1985, the proportion of employee and school cafeteria managers who are aware of, and actively promoting, USDA/DHHS dietary guidelines should be greater than 50 percent.
- *Reduced risk factors that could be influenced by school health programs* (b)
  58. By 1990, the mean serum cholesterol level in children ages 1 to 14 should be at or below 150 mg/dl.

(N) *Physical Fitness and Exercise*

- *Increased public/professional awareness via school health education* (a)
  59. By 1990, the proportion of adults who can accurately identify the variety and duration of exercise thought to promote most effectively cardiovascular fitness should be greater than 70 percent.
- *Improved surveillance/evaluation systems via school physical education programs* (a)
  60. By 1990, a methodology for systematically assessing the physical fitness of children should be established, with at least 70 percent of children and adolescents ages 10 to 17 participating in such an assessment.
- *Reduced risk factors via school physical education programs* (a)
  61. By 1990, the proportion of children and adolescents ages 10 to 17 participating regularly in appropriate physical activities, particularly cardiorespiratory fitness programs which can be carried into adulthood, should be greater than 90 percent.
  62. By 1990, the proportion of children and adolescents ages 10 to 17 participating in daily school physical education programs should be greater than 60 percent.

(O) *Control of Stress and Violent Behavior*

- *Increased public/professional awareness via school health education* (a)
  63. By 1990, the proportion of the population over the age of 15 which can identify an appropriate community agency to assist in coping with a stressful situation should be greater than 50 percent.

(table continues)

Table 5, continued

64. By 1990, the proportion of young people ages 15 to 24 who can identify an accessible suicide prevention "hotline" should be greater than 60 percent.

- *Improved health status objectives that can be influenced by school health programs* (b)

65. By 1990, the death rate from homicide among black males ages 15 to 24 should be reduced to below 60 per 100,000.
66. By 1990, injuries and deaths to children inflicted by abusing parents should be reduced by at least 25 percent.
67. By 1990, the rate of suicide among people ages 15 to 24 should be below 11 per 100,000.

SOURCE: D. Iverson and L. Kolbe, Evolution of the National Disease Prevention and Health Promotion Strategy: The Role of the Schools *Journal of School Health*, 53(5): 294-302, 1983.

parents or other concerned community groups. In addition, perceptions of health education usually are drawn from remembrances of relatively unsophisticated school lectures about "personal hygiene" that administrators, parents, and influential community members experienced during their own schooling. In some communities, health education is equated with sex education. In others, administrators would like to implement health education programs, but cannot find the means. In still others, administrators are not convinced that school health education can contribute to improving the health of their communities.

Thus, there are numerous barriers that impede school personnel from implementing effective health education programs in general, and from participating in the national strategy to improve the health of the Nation in particular. Six of these barriers are outlined here, with specific suggestions for reducing the impediments they pose.

Barrier I:
Lack of Clarity About the Federal Role in Improving School Health Education

Numerous Federal agencies have provided important resources for school health education. Projects supported through eight cabinet-level Departments are summarized in the *Interagency Meeting on Health Promotion through the Schools: Inventory of Federal School Health Promotion Activities Working Document* (32-33). Most typical of these projects are curriculum packages that address a categorical health problem (e.g., smoking, drinking and driving, etc.). Cognizant of the Federal role in education, most Federal officials who provide support for such projects enable accepted subject matter experts (usually college of education faculty) and classroom teachers to develop and test these packages, with input from other specialists and teachers across the nation. These curricular packages then are made available for school teachers throughout the nation to implement if they choose, and to modify according to the perceived needs of students in their respective communities. Such packages are neither intended nor imposed as Federal curricula.

Similarly, the national disease prevention and health promotion objectives have been conceived (with input from experts from across the Nation) not as Federal precepts, but as guideposts that might provide common direction and markers for progress. Many State and local departments of health, for example, have selected priority objectives to be addressed by their staff given the unique needs and resources of their populations.

The Office of Disease Prevention and Health Promotion, in the Office of the Assistant Secretary for Health of the U.S. Department of Health and Human Services, has responsibility for facilitating the coordination of the disparate disease prevention and health promotion activities of numerous Federal agencies, and for serving as a liaison for such activities in the private sector. By simultaneously addressing objectives in 15 health problem areas, the national strategy provides a useful mechanism to coordinate efforts within and between public and private sectors. To a considerable degree, the national health objectives also might provide a mechanism to address the concern of many school health education experts that fragmented and categorical efforts from a wide range of public and private agencies prevent the evolution of coordinated and comprehensive school health education programs. By providing objectives upon which various agencies might focus across health problem areas, the national strategy also might reduce the dilemma of school administrators who singularly and without a broad conceptual framework must decide which health problems deserve allocation of scarce curricular resources.

Indeed, recognizing that school administrators often are inundated with curriculum resources and initiatives sponsored by many organizations that support many worthy causes, and recognizing the need for coordination in the development and dissemination of such resources, in 1983 a National School Health Education Coalition was incorporated by relevant private sector agencies (e.g., the American Lung Association, American Cancer Society, National Center for Health Education, American Red Cross, American School Health Association, etc.). Prior to the actual incorporation of the coalition, several member agencies, with support from the Center for Health Promotion and Education, developed a series of *Health Education Materials Charts* (34) that list school materials available from major voluntary health organizations, for each grade level, across eight content areas in health education.

Unfortunately, while the National School Health Education Coalition provides a focal point for facilitating the development and coordination of school health education efforts in the private sector, and the

Assistant Director for School Health Programs in the Office of Disease Prevention and Health Promotion as well as the Chief of School and Community Programs in the Center for Health Promotion and Education provide focal points for facilitating the development and coordination of such efforts among Federal health agencies, there is no focal point for facilitating the development and coordination of school health education efforts among Federal education agencies. Athough a $10 million grant program was authorized by the U.S. Congress in 1979 to stimulate comprehensive school health education programs (35), and regulations were developed to support State and local education agency activities to plan, implement, and coordinate such programs (36), program funds never were appropriated. Indeed, the Office of Comprehensive School Health that was established within the U.S. Department of Education to provide a Departmental focal point for school health efforts and to administer the grant program, was dismantled with the reorganization of that Department in 1982. Thus, one of the most serious barriers to involving the schools in the national strategy to improve the health of Americans is the lack of a Department of Education office assigned responsibility for school health programs. Consequently, although the Department sponsors numerous categorical school health related initiatives (e.g., to address alcohol and drug abuse, smoking, consumer health, emotional health, environmental health, etc.), there is no office assigned to provide overall planning and coordination within the Department; and to serve as liaison for the numerous school health education efforts supported by other Federal agencies, by State and local education agencies, and by organizations within the private sector.

The designation of an office in the Department of Education could do much to facilitate the involvement of schools in the national strategy to improve the Nation's health. Staff from such an office might participate in monthly meetings currently convened by the Assistant Secretary for Health to analyze the Nation's progress in attaining objectives in one of the 15 health problem areas. Staff also might review the *Public Health Service Implementation Plans for Attaining the Objectives for the Nation* with other Department of Education officials and might meet with officials of the lead agencies within the Public Health Service (assigned responsibility for coordinating efforts to attain objectives in one of the 15 health problem areas) in order to determine the most efficient ways that schools could contribute to reducing respective health problems. In addition, Department of Education and U.S. Centers for Disease Control staff could work with the Center for Health Promotion and Education to provide school health education technical assistance and resources to State and local education agencies. The next Federal Interagency Meeting on Health Promotion through the Schools might focus upon what the relevant agencies in various Federal Departments already are doing to attain the health objectives, and how agencies might work together to attain objectives of common interest. For example, the Center for Health Promotion and Education might work with the National Health Information Clearinghouse to establish a mechanism to continuously update *A Compendium of Health Education Programs Available for Use in Schools* (37), and to disseminate it through the Educational Resources and Information Center (ERIC) microfiches that are available at all major colleges of education. As another example, the rapidly expanding annotated guide to *Health Promotion Software* (38) also could be stored and updated as part of the ERIC system.

Barrier II:
Lack of Involvement by Educational Agencies

Just as the vast majority of Federal initiatives to improve health through education are launched and supported by health rather than education agencies, so too are most non-Federal initiatives. For example, the increased interest of organizations like the American Medical Association, the Health Insurance Association of America, the American Public Health Association, and State and local departments of health in supporting health education in schools has not been matched by organizations like the National Education Association, the Association for Supervision and Curriculum Development, the National Association of State Boards of Education, the National Association of Elementary School Principals, and most State and local departments of education. The reason for this may be that health professionals are far more aware of the potential to reduce disease, disability, and death through school health education. However, while the improvement of population health is the primary professional goal of health professionals, the maintenance and improvement of health traditionally has been a fundamental goal of American education also.

As reflected by numerous recent reports, perhaps typified by The National Commission on Excellence in Education report on *A Nation at Risk: The Imperative for Educational Reform* (39), it is becoming increasingly important to our society that our educational institutions improve the academic skills and the academic achievements of students. The evidence is clear, however, that poor health impedes academic achievement. Perhaps even more important, evidence is mounting that changes in certain health-related behaviors (including dietary, exercise, sleep, and stress-related behaviors) may increase cognitive performance significantly (40). Thus, school health education programs logically might serve as a principal and efficient component of educational reforms to improve the educational achievement of our children and youth.

To address the lack of education agency involvement in health education, those involved in the development and dissemination of school health education initiatives might meet with leaders of professional education organizations to analyze the potential for collaborative initiatives. School health education professionals might submit papers for presentation at professional education meetings, and for publication in professional education journals, to describe the nature of health problems facing our Nation, initiatives to reduce those problems, and the actions that schools might take in such national initiatives. Education professionals similarly might be invited to submit papers for presentation in professional health education journals, and at professional health education meetings, to describe impediments, opportunities, and issues relevant to the provision of health education programs by schools. College of education faculty that train teachers, educational administrators, and other school personnel, should be informed about specific means by which schools could be involved in the national strategy to improve the health of Americans. For example, the Bureau of Health Manpower is convening a series of conferences to enable faculties of medical schools, schools of allied health professionals, and schools of public health to analyze means by which their faculty might address the national objectives in their professional preparation programs. A similar conference could be convened to enable faculty of colleges of education to analyze how they might address the national objectives in their professional preparation programs. Since more than 250 insitutions of higher education offer at least one degree program in health education (41-43), some expertise about health education already exists on many campuses. Relatedly, in several States (including Oregon, Wisconsin, Virginia, Washington, and North Carolina) where State departments of education have conducted retreats to enable school personnel from across the State to experience creative health education programs, to practice healthy behaviors, and to appreciate a healthy environment, teachers and administrators frequently have returned to their schools with a new commitment to improve the school health program for their students (44).

In addition, recognizing that school personnel comprise one of the largest labor forces in any State, and in the Nation, health promotion programs offered to school personnel should yield dividends equivalent at least to those reaped by worksite health promotion programs designed for various business and industrial workers, by reducing stress and absences, and by increasing morale and productivity (45-46).

Barrier III:
Lack of Coordination Among Federal, State, and Local Departments of Education and Departments of Health

A strong focus for health education in the U.S. Department of Education could facilitate collaborative efforts between that agency and the Department of Health and Human Services. In most States, the chief State health officer employs a director of health education in the departmentof health, while the chief State school officer employs a director of health and physical education in the department of education. Unfortunately, only in very few States do these individuals work together in any planned and coordinated manner. Similarly, very few local health departments and local education agencies work together to improve school health education. The needs, benefits, and capacities for such coordination perhaps were well exemplified in 1980 when of the 165 State and local intervention projects funded through the Health Education—Risk Reduction Grant Program, 78 (or 44 percent of the total) were located within a school setting exclusively, and 111 (or 67 percent of the total) were located within some combination of a school setting and at least one other setting (i.e., community organization, church, health department, professional organization, hospital/clinic, neighborhood center) (47).

To address this barrier, representatives from the Council of Chief State School Officers, the Association of State and Territorial Health Officers, the Association of State and Territorial Directors of Health Education (from State departments of health), and the Society of State Directors of Health, Physical Education and Recreation (from State departments of education) might meet to analyze and suggest means by which State health and education agency staff might collaborate to attain common objectives. Representatives of groups such as the U.S. Conference of City Health Officers, the National Association of County Health Officials, the American Association of School Administrators, and the Association for Supervision and Curriculum Development also might participate in such a meeting. The analysis and recommendations that derive from such a conference might be published in relevant journals.

Barrier IV:
Lack of Accepted Instruments to Measure the Implementation of Health Education Programs in Schools

Although several State departments of education have developed checklists by which schools and districts informally might assess the quality of their health education programs, no State department of education has compiled data about the nature of such programs in their State. There has been only one attempt, in 1964, to assess the status of health education in schools nationwide (31). One reason for this is that there are no accepted guidelines for comprehensive school health education programs. However, several professional organizations are working toward endorsing a common set of such guidelines.

The American School Health Association and the U.S. Centers for Disease Control on a periodic basis have published *School Health in America: A Survey of State School Health Programs*, which largely reviews

State policies regarding school health education, school health services, and the school health environment (48–49). While this document is extremely valuable, it does not provide data about what actually exists in schools and thus it does not enable comparison of the quality and quantity of health education programs among schools or over time. Therefore, we have only crude measures to discern whether school health education in a given school, district, State, or indeed the Nation is comparatively well-provided; whether it is improving or deteriorating; or whether various efforts to increase and improve it are differentially successful in achieving intended effects.

To address this barrier, a relatively brief standardized instrument might be developed to generate essential information about the quality of the health environment, the quality of health services, and the quality of health education provided by a given school. Experts in each of these three components of the total school health program might be convened to transpose standards or guidelines that have been developed for each of these three components into respective subsections of a comprehensive school health program measurement instrument. Administrators within State departments of education thus could describe and monitor the quality of the health environment, health services, and health education offered by schools in the State. Indeed, the American School Health Association recently has prepared a proposal to modify the process used to gather data for the next and succeeding issues of *School Health in America* in a manner similar to that described above.

Barrier V:
Lack of Accepted Instruments to Measure Outcomes of School Health Education Programs

There has been no effort in the United States to delineate essential health knowledge that students should exhibit, for example, before graduating from high school. Also, there has been no effort to identify essential health behaviors of young people that might be surveyed periodically. The National Center for Health Statistics has prepared a special supplement for the next National Health Interview Survey to be conducted by the Census Bureau (in 1984), and the Center for Health Promotion and Education has assisted each of 34 States to conduct a Risk Prevalence Survey. These two mechanisms will allow us to assess and chart health knowledge and behaviors of American adults (over the age of 18), but not of American children and adolescents. Importantly, these two mechanisms will provide data that will be useful for monitoring the Nation's progress in attaining the national health objectives.

Researchers in England (50) and Canada (51), have developed mechanisms to survey the health knowledge and practices of school children and youth. In the United States, the Centers for Disease Control is exploring the development of a Teenage Health Risk Appraisal instrument (52), and an instrument with which to measure important health knowledge, attitudes, and practices of students in grades four through seven (53). Neither instrument, though, currently is being designed to gather information that might be representative of student achievements in a given school, district, or State. The State of Michigan, however, has developed a health knowledge test that regularly is administered to students in third, sixth, ninth, and tenth grades throughout the State (54). In addition, the Illinois Association for Health, Physical Education, and Recreation, in collaboration with the Illinois State Board of Education, is developing a Health Knowledge and Practices Survey for High School Seniors in that State (55). The survey instrument is being developed by constructing criterion-referenced health knowledge and behavior questions that simultaneously address (1) the State's "Suggested Content of [13] Curricular Categories Required by the *Critical Health Problems and Comprehensive Health Education Act* (56)" and (2) the "National Health Promotion & Disease Prevention Objectives that Can Be Achieved Directly or Indirectly by Schools (29)." Indeed, the national objectives provide an important means by which essential health knowledge and practices might be distilled from broader health content in order to construct measurement instruments that school personnel may find feasible and desirable to administer. The national objectives also provide a means by which, if the same instrument were used by different school districts and States, comparisons might be made among schools over the time to chart the effectiveness and progress of school health education programs.

An accepted instrument to measure the outcomes of school health education programs could identify essential health knowledge and behaviors to be addressed by school administrators and teachers. In addition, as with nationally available tests of reading, science, and mathematical competencies, such an instrument could stimulate school assessment of student competencies to maintain and improve health. Also, comparative scoring could stimulate competition among schools to ensure that their students achieve acceptable competency levels. Such an instrument might be developed collaboratively by school health education experts, by those responsible for the development of relevant instruments described above, and by those responsible for the National Assessment of Educational Progress (at the Educational Testing Service) and the High School Senior Examination (at the National Institute of Education).

Barrier VI:
Lack of Sufficient Support to Implement Health Education Programs in Schools

Means to increase and improve health education in schools most recently have been addressed by the

American School Health Association (57) and by Eta Sigma Gamma (National Professional Health Science Honorary) (58), and can be classified in nine categories: legislated rights and administrative regulations; grants; curricular structures; educational product-systems; organizational structures; personnel training; professional techniques; specialist personnel assistance; and, technical system assistance (59). The national health promotion and disease prevention objectives might facilitate and focus the development of these means to increase and improve school health education programs. For example, the objectives might provide a focus for the development of *educational legislation and administrative regulations* that could stimulate greater appropriation of curricular time and resources for school health education. Concerted support for such legislation and regulations might be more readily elicited if parents, concerned community members, and health agency personnel understood how schools could achieve specific objectives as part of the national strategy to improve the health of Americans.

Similarly, three out of the four health block *grants* (i.e., for preventive health services; alcohol, drug abuse, and mental health projects; and maternal and child health services) and relevant sections of the education block grant (60) might be used to support school health programs to achieve the national health objectives.

Curricular structures might be designed to characterize and analyze hierarchical relationships among the five categories of objectives within a given health problem area, in order to determine how schools can contribute to reducing morbidity and mortality within our population (Figure 1) (61).

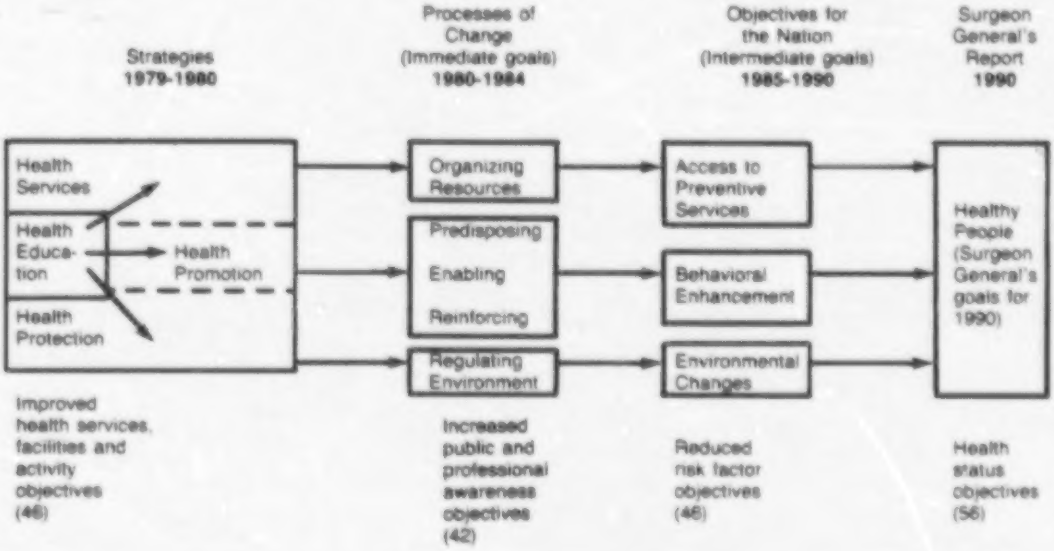
Major school health *education product-systems* that have been developed by numerous public and private organizations (e.g., the Centers for Disease Control, American Cancer Society, Department of Agriculture, California Department of Education, etc.) might be analyzed to delineate the national objectives they address. As these product-systems are revised over time, and as new ones are developed, the national objectives can facilitate the generation of more common and comprehensive health education curricula.

To attain the national objectives, school health education efforts must be integrated with complementary educational, organizational, political, and economic interventions implemented by professional and voluntary health organizations, governmental health agencies, and legislators. This, in turn, will require such *organizational structures* as relevant committees and agency offices to integrate school health education efforts with other community efforts to promote health (62).

Personnel training might be provided to appropriate faculty in departments of health education in colleges of education and in schools of the health professions to define potential roles and activities of each profession in attaining the objectives and to illuminate means by which members of these two professions might collaborate to attain common objectives.

Models of teaching (e.g., simulation, social problem solving, assertiveness training, etc.) and teaching techniques (e.g., audiovisual presentations, field experiences, readings, games, etc.), which together comprise *professional techniques*, could be developed to address the national health promotion and disease prevention strategy, as well as to address relevant

FIGURE 1
Structure of the Objectives for the Nation in Disease Prevention


Strategies
1979-1980
Processes of Change (Immediate goals)
1980-1984
Objectives for the Nation (Intermediate goals)
1985-1990
Surgeon General's Report
1990
Health Services
Health Education
Health Promotion
Health Protection
Organizing Resources
Predisposing
Enabling
Reinforcing
Regulating Environment
Access to Preventive Services
Behavioral Enhancement
Environmental Changes
Healthy People (Surgeon General's goals for 1990)
Improved health services, facilities and activity objectives (46)
Increased public and professional awareness objectives (42)
Reduced risk factor objectives (46)
Health status objectives (56)

objectives within each of the 15 health problem areas.

The Society of State Directors of Health, Physical Education, and Recreation, the State and Territorial Directors of Public Health Education, State and local health education associations (e.g., State and Regional Associations of the American Alliance for Health, Physical Education, Recreation and Dance; the American School Health Association; the Society for Public Health Education), and health educators in local chapters of national voluntary health organizations (e.g., the American Heart Association, American Cancer Society, American Red Cross, American Lung Association, etc.) might be trained to provide *specialist personnel assistance* for orchestrating coordinated school and community efforts to attain relevant national health objectives.

Finally, the Office of Disease Prevention and Health Promotion, the Centers for Disease Control, the National Institutes for Health, the Department of Education, and the Department of Agriculture might provide *technical system assistance* directly to schools to enable them to develop programs that would contribute to attaining the national objectives.

Conclusion

There are several important barriers to increasing and improving health education in our Nation's schools. The national health objectives provide one mechanism for reducing these barriers by serving as a common focal point and framework for (1) sharpening and integrating Federal efforts to support health education in schools nationwide; (2) involving the educational sector in the national strategy to improve the health of Americans; (3) coordinating efforts among Federal, State, and local departments of education and departments of health; (4) developing instruments to measure the quality of school health education programs within a State and throughout the Nation; (5) developing instruments to measure essential health knowledge and behaviors of school-aged children and youth; and, (6) generating broadly based community support for school efforts to improve health.

The national health promotion and disease prevention objectives will be revised periodically during this and succeeding decades to accommodate changing circumstances. Education professionals should be involved in revising the objectives and in designing initiatives to achieve them, since these professionals most fully understand what our Nation's schools can and cannot do to enhance wellness and prevent disease. Accordingly, this paper has been prepared to portray briefly the national strategy to improve the health of Americans, to identify barriers that may preclude the involvement of schools in the national strategy, and to stimulate discussion about concrete actions that might be considered to reduce these barriers.

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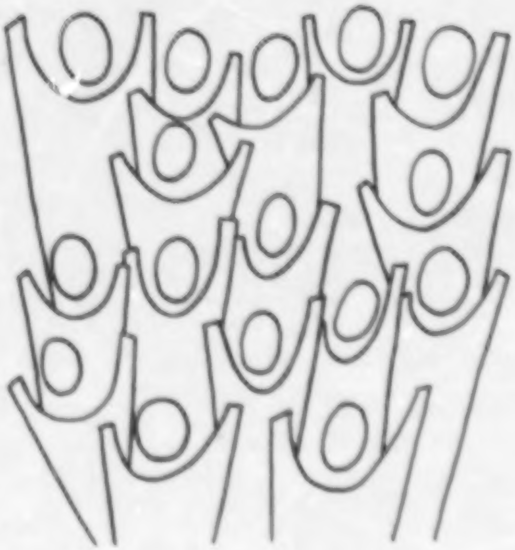

Section 4: Background Papers

Health Promotion in Voluntary Associations

INTRODUCTION

The remarkable shift in the leading causes of death and disability—from infectious diseases to chronic conditions—has stimulated interest in health promotion in recent years. The theory is that since today's leading killers—heart disease, cancer, accidents, cirrhosis, etc.—can be linked to such lifestyle habits as smoking, drinking and drug use, diet, fitness level, and stress, it follows that changing personal behaviors should result in significant improvements in health status.

However, changing personal behaviors is not a simple task. Consider nutrition for an example. We are teaching more about the links between diet and disease, but the relationships are complex: Eating habits are influenced by cultural heritage, availability of foods, access to stores or transportation, socioeconomic status, cooking skills, and personal preferences, and further complicated by economic considerations of an industry built to meet increased consumer demands for quick and convenient food. How do health considerations fit into this complicated social equation? What steps should be taken to encourage people to choose healthy behaviors?

One thing is certain: improvement of health status no longer rests solely within the confines of the medical profession nor within the institutions chartered to protect the public's health. Coordinated action by many sectors of society is required if we are to reach our potential for good health. Recognition of the changes in the nature of health problems and the means for improving them has been widely discussed and published, most notably in the Surgeon General's 1979 report on disease prevention and health promotion, *Healthy People* (1). Following publication of *Healthy People*, representatives from a variety of private and public groups met and established achievable targets in disease prevention and health promotion to be reached by 1990. These representatives developed 227 measurable objectives grouped into three areas—health protection, preventive health services, and health promotion. With the publication of *Promoting Health/Preventing Disease: Objectives for the Nation* (2), directions were established for national action.

This paper was developed to provide background information for the meeting on *Prospects for a Healthier America: Achieving the Nation's Health Promotion Objectives*. The United States has thousands of national, State, and local voluntary groups—many of which focus solely on health issues. However, how these groups influence health behaviors has not been systematically examined. Therefore, this paper discusses the ways in which voluntary groups have influenced and are influenced by health issues. It reviews

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the traditional role voluntary associations have played in health, describes current health promotion activities, and raises some issues about the voluntary sector's role in the area of health.

Since little systematic information was available, the authors supplemented their personal knowledge and experience by conducting telephone interviews with the staffs of twenty-one voluntary agencies (see the appendix). These agencies all had a stated interest in health promotion and met one or more of the following criteria: an affiliated or community linkage structure, professional staff at the national and local levels, and regional training capacity. No attempt was made to identify all organizations meeting these criteria; indeed, many other voluntary organizations, in addition to those interviewed, play important roles in health promotion.

VOLUNTARY ACTION FOR HEALTH PROMOTION

Historical Background

"Americans of all ages, all conditions and all dispositions, constantly form associations—and regard these associations as the only means they have of acting . . . in a democracy men need to combine in order to act . . ." (3). These observations, made by Alexis de Tocqueville in 1835, describe the uniquely American propensity for forming and joining associations of all types as an expression of public concern about particular issues. The early history of the major national voluntary health organizations has been amply chronicled in several books, including Gunn and Platt's *Voluntary Health Agencies: An Interpretive Study*, Calvins' *National Health Agencies: A Survey*, Hamlin's *Voluntary Health and Welfare Agencies in the United States*, and Carter's *The Gentle Legions*. (4-7) These works document the long and impressive history voluntary associations have in promoting the health of the American people through research, public and professional education, and medical service programs in their fields of interest. The voluntary sector played a leadership role in public health, addressing major health problems and pioneering the adoption of principles of preventive medicine long before the government began to take on significant responsibilities. George Rosen describes the voluntary health agency as "a distinctly modern institution which started out to provide health services that had not previously been available . . . [voluntary health agencies are] rooted both in modern concepts of health and disease and in early efforts to deal with problems related to poverty." (8) Voluntary organizations have been responsible for a number of major national efforts to inform the public about risk factors for disease and measures for their control.

The first national voluntary health agency was the National Association for the Study and Prevention of Tuberculosis, founded in 1904, which evolved into the American Lung Association. Other organizations formed in the first decade of this century include the National Committee for Mental Hygiene, the American Association for the Study and Prevention of Infant Mortality, and the National Association for the Prevention of Blindness. Voluntary groups have proliferated ever since, adapting to major social changes as the advancement of public health and medicine led to the effective control of many diseases. Health professionals have been enthusiastically joined by lay people to promote education and research for particular health problems. Growth in hospital care, medical technology, and disease identification and treatment has been accompanied by related growth in volunteer involvement in these areas. Social welfare problems of great import early in this century, including child care and intemperance, led to the establishment of many of the organizations that continue today to respond to concerns for health promotion.

The Great Depression of the thirties revealed the limited ability of the voluntary sector to deal with human needs on a massive scale. As a result, the Social Security Act of 1935 heralded the first Federal legislation to address these problems (9). Following World War II, the growing government involvement in addressing the welfare needs of the population continued to change the role of the voluntary sector and private philanthropy. In 1930, the percentages of private and government spending for health were about equal; but by 1973, philanthropy had dropped to 16 percent of Federal expenditures. By 1981, almost $10.00 of Federal funds were spent for every $1.00 of philanthropy expended. Federal funding and private sector donations account for almost one third of health expenses, with the rest coming from State and local governments, private insurance, and out-of-pocket expenditures. As shown in Table 1, the ratio of private to Federal spending is declining in spite of the growing dollar amounts being spent on health.

TABLE 1: Percentage Distribution of National Health Expenditures by Private Philanthropy and the Federal Government

Expenditures by	1930	1950	1973	1981
Private philanthropy	2.8%	4.4%	4.2%	3.2%
Federal government	3.2%	11.4%	27.2%	29.3%

Source: Based on information in "Research Papers Sponsored by the Commission on Private Philanthropy and Public Needs, Volume II: Philanthropic Fields of Interest, Part I—Areas of Activity." U.S. Department of Treasury, 1977, p. 643, and U.S. Health Care Financing Administration, *Health Care Financing Review*, September, 1982.

Traditional Roles of Voluntary Associations

Gunn and Platt (4) described the principal functions of voluntary agencies as pioneering, conducting demonstrations, educating the public, supplementing and promoting official governmental activities, advancing health legislation, and planning and coordination (e.g., through health councils). Thirty years later, the Filer Commission Report (9) identified the following functions for the voluntary sector:

- initiating new ideas and processes;
- developing public policy by clarifying and defining issues for public consideration;
- supporting minority or local interests that may be neglected by official government action;
- providing services the government is not allowed to offer;
- overseeing government—monitoring and influencing government activities;
- overseeing the marketplace;
- bringing the sectors together—stimulating and coordinating joint effort;
- giving aid abroad; and
- furthering active citizenship and altruism.

A Study of the Role of the Voluntary Sector carried out by the Health and Welfare Planning Association (10), a United Way planning group, identified the following historical functions of voluntary organizations:

- providing a channel for citizen participation in decision making;
- providing services not otherwise available;
- providing research, implementation, and technical assistance;
- providing continuity of service; and
- providing mechanisms for accountability.

The mission, characteristics, and traditions of voluntary associations create a unique set of circumstances which lend themselves to involvement in national efforts to improve health.

For example, most voluntary activity is based on the achievement of a common goal. In providing the services necessary to inform and organize citizens, the voluntary sector has produced networks of communication, influenced legislation, and created national support for issues. In addition, the single-issue approach has led most voluntary organizations to develop expertise and resources in a single area. As a result, one of the chief attributes of the voluntary sector's position in research, implementation, and technical assistance is that knowledgeable citizens and experts from the field are active in the process. Their ability to hold the attention of outstanding health professionals has helped establish credibility in their specific areas of interest.

For many voluntary organizations, interest in health promotion grew out of their service mission. For example, the Young Men's Christian Association (YMCA) and Young Women's Christian Association (YWCA), and the Boys and Girls Clubs of America have had a long and consistent interest in physical fitness, although they do not traditionally see themselves as health care providers. The voluntary associations described in this paper represent the wide variety of organizations comprising the voluntary sector. They range from well-known voluntary health groups to educational and service organizations and youth development groups. Their neutrality as nonofficial associations allows them to exert influence that might be viewed as objectionable if promoted through tax-supported activities. Virtually all of the voluntary assocations described here have extensive nationwide networks of lay and professional constituents who serve in staff, volunteer, and support roles.

Special Interests of Voluntary Associations

Voluntary associations concerned with health and welfare can be grouped into several categories: those concerned with a specific disease; associations serving the needs of specific population groups; organizations concered with a particular problem area; service organizations; and coordinating groups.

Disease-Specific Associations

The earliest voluntary associations organized their activities around a particular disease. Examples of disease-specific associations are the American Cancer Society and the National Council on Alcoholism. Groups concerned with disorders of certain organs include the American Lung Association, the American Heart Association, and the National Kidney Foundation.

These organizations raised funds from individual and other private sources in order to fund basic research, provide public and professional education, offer medical or support services such as transportation to treatment, and advocate social action for change.

Population-Specific Associations

Problems affecting certain population groups have generated voluntary interests since the 19th century. Examples of population-specific organizations include: the American Association of Retired Persons (AARP), the National Coalition of Hispanic Mental Health and Human Services Organizations (COSSHMO), the National Urban League, youth-serving groups such as the Boys and Girls Clubs and the Scouts, character-building organizations such as the YMCAs and YWCAs, and the auxiliaries to professional associations.

Such organizations develop programs and offer services specifically tailored to the population groups they serve. Organizational goals are likely to include enabling the group served to obtain the information, skills, and services required to live better lives. Youth organizations, such as the Boy and Girl Scouts, are concerned with developing character and citizenship in young people; health may be only one of a wide range of interests.

Problem- or Subject-Specific Associations

Groups concerned with a particular area of public service include the National Safety Council, the Cooperative Extension Service, and the American Red Cross. The functions of these groups vary considerably from one agency to the next. Neither the Cooperative Extension Service nor the American Red Cross are typical voluntary associations. The Extension Service, created to take information to rural America, is a partnership of Federal, State, and local governments with extensive volunteer involvement; the American Red Cross is a "quasi-government" organization with special disaster relief responsibilities.

Service Associations

Examples of service organizations include the Association of Junior Leagues, Women's Clubs, Rotary, Kiwanis, and hospital and church auxiliaries. Such groups have multiple functions, providing their members with opportunities for volunteer service, social interaction, and education. Many of them often sponsor or participate in health-related community projects.

Coordinating Associations

The National Health Council and the United Way of America are examples of coordinating organizations that provide a variety of services to their members.

CURRENT ACTIVITIES

On the National and Regional Levels

Involvement in health promotion activities at the national and regional levels ranges from slight to intense among the associations interviewed. The degree of involvement depends upon such factors as the association's principal mission, structure, funding, staffing, and constituency's needs and interest. All associations, however, anticipate increased involvement in health promotion, and certainly there is great potential for growth in this direction.

Associations typically use the following activities to further their interests: holding conferences and national conventions; developing and implementing or disseminating programs; developing print and audiovisual materials; training; research and evaluation; and influencing public policy.

Conference and Conventions

Regular meetings enable voluntary associations to network, develop staff, propose action agendas, and set standards and policies. The annual meeting or national conference provides opportunities for the dissemination of information about health promotion. For example, the National Health Council, devoted its 1972 National Health Forum to the findings of the President's Committee on Health Education and its 1980 forum to "Health Promotion: A Threat or a Promise"(11). The Council's 71 voluntary and professional health association members received state-of-the-art information on trends in the field. The American Red Cross' centennial celebration in 1981 included a major initiative to encourage Americans to follow the sound health practices that might lengthen their lives and help contain spiraling medical costs(12).

The National Recreation and Parks Association and the Coalition on Fitness through Recreation held a national symposium on The Mobilization of Fitness Through Recreation in March 1984. COSSMHO holds biennial national conferences on health and human services for professionals working with the Hispanic community. The Healthy Mothers, Healthy Babies Coalition, a coalition of over 60 groups interested in maternal and child health issues, uses national meetings to share information and promote intergroup cooperation.

Some organizations also have regional meetings that accomplish goals similar to those of national meetings. The Cooperative Extension Service holds regional conferences; the National Council on Alcoholism assists with regional conferences held by affiliates; and the National Safety Council sponsors a wide variety of regional symposia and meetings.

Program Development

Most agencies develop programs at both national and local levels. The YWCA's "Comprehensive Preventive Health Program for Women" is under development at the national level, as is the Girls Clubs new comprehensive program. The National Kidney Foundation also develops programs at the national level for local use. National boards and committees have considerable influence over program selection and development, although nationally developed programs often have extensive input from local units. Successful locally developed programs frequently become models for other communities and are featured or "showcased" at national meetings. Occasionally a locally developed program, such as the American Lung Association's smoking and pregnancy package, will be adopted on a national level, repackaged, and disseminated to all local units.

Programs of the American Heart Association are developed through a process in which ideas submitted by local units are considered by a Program Committee for national development. Programs of the American Cancer Society usually are developed at the national level with materials and program guidelines provided to local units.

While some programs may be little more than public information campaigns designed to increase public awareness about a health problem or issue, others are more complex, involving efforts to change human behavior. Such programs typically are based on data from needs assessments, are designed to meet very specific behavioral objectives, include a combination of educational strategies, address social and environmental factors that influence the targeted behavior, and provide for program evaluation.

Development of Print and Audiovisual Material

Materials development is used extensively by all voluntary associations. Print and audiovisual materials are useful educational tools because of their low cost and ease of distribution. For example, AARP has a variety of films which are quite popular with chapters for use in local programs; the National Safety Council produces magazines, manuals, kits, fact sheets and brochures, and audiovisuals; the American Red Cross has a television studio and distributes kits with Safety Training manuals. Newsletters are produced by most organizations. The American Cancer Society, American Lung Association, and American Heart Association posters, models, displays, and exhibits are often highlights of school health programs, community meetings, and health fairs. Materials developed for high-risk populations, used in conjunction with other teaching methods, and evaluated for their ability to influence behavioral change, become effective tools for promoting health. National media campaigns, while used extensively for fund-raising purposes by some voluntary associations, are only beginning to be used to promote healthful behaviors. "Chemical People"—a national project initiated by public television station WQED in Pittsburgh in cooperation with citizen task forces, schools, and drug and alcohol professionals—is a recent attempt to combine the attention-getting, motivating, and information powers of television with community outreach in the field of teenage alcohol and drug abuse.

Training

Training is an important method of delivering quality programs to the public. Training occurs at national, regional, and local levels, but developing training materials is usually a national activity. Teacher training is widely used because it is an efficient means of transferring knowledge and skills for program implementation. For example, the Girl Scouts of the U.S.A. has a national training center where staff are trained to teach community volunteer leaders. The YWCA also has a national leadership development center. The Cooperative Extension Service provides training at conferences and regional meetings.

Research and Evaluation

Voluntary associations for specific diseases encourage and often provide funds for research to discover treatments and cures. Of particular importance is their demand for a scientific base on which to make program decisions, which has led to university and hospital research efforts and to Federally supported research. Program evaluation is an important activity for most voluntary organizations, although it is usually directed more toward assessment of materials and training programs than program outcomes.

Intensive internal evaluations influenced the Cooperative Extension Service's work in health promotion. The Extension Service published results of a national survey in 1976, and in 1980 published *Health Education in the Cooperative Extension Service*(13). Both reports provide descriptions of efforts to influence health behavior using Extension Service methods of home visits, peer teaching, and self-care.

The American Red Cross, stimulated by Federal reports on health promotion and disease prevention, undertook a three-year health services study. The study report(12), released in January 1981, indicated the Red Cross should implement long-range health service initiatives with self-health as their central theme. Whereas Red Cross previously had measured process, they are now measuring program outcomes related to behavior change.

The American Cancer Society emphasizes evaluation of all phases of its activity: monitoring public attitudes, testing clinic models and materials, and initiating a code of practice that includes minimum standards for evaluating smoking cessation programs.

The YWCA includes evaluation as a component of nationally developed programs and encourages local units to evaluate programs and instructors. The Boys Clubs are evaluating their "Superfit Allstars" programs in terms of knowledge, attitude, and behavior changes.

The reason few voluntary organizations conduct outcome evaluation is that it is difficult and expensive. Most voluntary groups would appreciate a continuing source of information on behavioral research and many of them are, in fact, already sharing knowledge on what does and does not work. However, such information seldom gets published in the academic literature.

A major effort to present useful and practical information about program evaluation relevant to the health promotion field has been undertaken by the Health Services Research Center, University of North

Carolina, Chapel Hill, with funds from the W.K. Kellogg Foundation. The Center publishes a newsletter* on evaluation for administrators and staff of health promotion programs that discusses basic evaluation concepts and common problems encountered in designing and implementing program evaluation with minimal resources.

Public Policy Setting

Influencing public policy is a generally accepted role of voluntary associations. Participation in such associations allows people to become personally involved in the political process of making decisions about human needs. The National Health Council's 1960 statement on "Voluntaryism and Health" credits voluntaries with an "indisputably important role in legislative developments in the field of health in this century."(14) By providing leadership, by identifying needs and supplying information to support the existence of needs, and by financing a service until it is accepted as a public responsibility, voluntary associations have placed their interests in the public arena.

Two examples of the influence of voluntary organizations on public policy making are (a) the role of the predecessor of the American Lung Association in setting national policy by calling public attention to the existence of tuberculosis as a major public health problem at the turn of the century and (b) a similar role played by the American Cancer Society in relation to smoking in the middle of this century. More recently, the National Safety Council and the National Council on Alcoholism have adopted policy statements to carry out recommendations of the President's Commission on Drunk Driving.

On the Local Level

Diversity Versus Uniformity of Programming

While local activities within some organizations such as the American Cancer Society, the American Heart Association, and Boy and Girl Scouts are very similar across the country, the local programming of other groups is more diverse. Local Junior Leagues choose projects based on a community needs assessment process, obtaining national assistance when desired. Projects range from helping hungry people to sponsoring educational activities related to teenage drug and alcohol use, child abuse, and smoking. The Cooperative Extension Service also emphasizes involvement of local citizens in program planning.

Affiliates of the National Urban League offer programs that fit their community's needs, for example, high blood pressure control, nutrition, drug and alcohol abuse, and physical fitness/exercise.

Demonstration Projects

Demonstration projects and locally initiated programs provide an important mechanism for organizations to experiment with programs and develop models. The American Cancer Society's smoking cessation program, for example, was first developed in its California division prior to national dissemination, as was the American Lung Association's kit for pregnant women and their physicians, which originated in Maryland with financial support form the Centers for Disease Control.

State and local units of the Cooperative Extension Service have piloted a variety of health education and promotion projects, such as the "4-H for Life" adolescent health promotion program in Florida, which was a computerized health profile offering teens the opportunity to attend a series of health education sessions and a camp weekend. The Boys Clubs developed its "Body Works" program primarily through local demonstration projects and tested its nationally designed "Superfit Allstars" program at the local level. "Body Works," a health promotion program developed with foundation funds, provides nearly two hundred club-wide activities to guide members, staff, and parents in making health decisions. Five content areas are emphasized: personal health, total fitness, emotional well-being, sexuality and family life, and survival and accident prevention.

Volunteer Involvement

Local volunteers play a variety of roles and may serve on a variety of committees or as program advisors. Most organizations have volunteer boards at both national and local levels comprised of professional and lay members. The Cooperative Extension Service depends on volunteers to determine local goals and allocation of resources. Local Junior Leagues are entirely volunteer run, as are chapters of the National Kidney Foundation. Youth organizations, such as local Boy Scouts, Girl Scouts, and 4-H clubs have traditionally had volunteer leaders. Local YMCAs and YWCAs and Girls Clubs and Boys Clubs use volunteers to supplement paid staff in local programming.

Voluntary service by lay persons constitutes a growing and pervasive mediating stucture according to Levin and Adler in *The Hidden Health Care System*(15). Lay people at the neighborhood and community level are recruited, screened, and trained to perform purposeful services for people in need as part of or as an extension of a professional service. Lay leaders are used effectively as behavior change agents in smoking cessation programs, weight management, and exercise classes.

**Baseline* is published quarterly and is available from Health Services Research Center, The University of North Carolina, Chase Hall 132-A, Chapel Hill, North Carolina 27514.

"Women as Preventors: An Adult-Teen Partnership", a program of the National Board of the YWCA, is a comprehensive training package focusing on alcohol problem prevention for women(16). During an eleven-session course, volunteer participants acquire skills and resources necessary to plan community-based prevention projects for women, teens, and/or parents.

A National Extension Homemakers Study of the extent of volunteer involvement found that Extension Homemaker volunteers annually contributed fifty-six hours of service, through which each member reached an additional one hundred thirty-six persons. In a twelve-month period this service is projected to have provided more than 75 million educational contacts with a value of over $135 million.

Activities Related to Health Promotion Initiatives

In recent years voluntary groups have increased their active involvement in health promotion related to national health goals. This increased activity has been influenced by the Federal government's health promotion initiatives following the *Report of the President's Committee on Health Education* and by the support of such major philanthropies as the W.K. Kellogg Foundation and the Richard King Mellon Foundation(17). Interviews with the twenty-one represented associations (see the appendix) provide a sense of what is being done by voluntary groups across the country. For the purpose of the interviews, the definition of health promotion was limited to planned and measurable interventions designed to influence individual and group behavior related to smoking, misuse of alcohol and drugs, nutrition and diet, control of stress and violent behavior, and exercise and physical fitness. This decision was made to maintain consistency with the language used in *Promoting Health/Preventing Disease: Objectives for the Nation*(2).

Several groups stressed that they do not give priority to any one behavior area, but prefer a balanced, comprehensive approach to risk reduction. For example, the American Heart Association is concerned with all risks related to cardiovascular disease; COSSMHO focusses on general health promotion which touches on all five areas; Girls Clubs of America places equal priority on all areas but stress; Boys Clubs of America has adopted a comprehensive approach through its "Body Works" program; and the YWCA is developing a "Comprehensive Prevention Health Program for Women" that includes all areas.

Smoking

According to *Healthy People*, cigarette smoking is "clearly the largest single preventable cause of illness and premature death" in this country(1). The epidemiologic evidence against smoking finds that smoking is a major risk factor associated with lung cancer, chronic obstructive lung disease, and coronary heart disease.

Goals for 1990 cited in *Objectives for the Nations*(2) include reducing the proportion of adults, pregnant women, children, and youth who smoke; reducing the level of harmful components of cigarette smoke; increasing public awareness of the risks of smoking; increasing the availability of smoking cessation services; improving protection services; and improving surveillance and evaluation.

Smoking receives a great deal of attention from the three agencies that form the Coalition on Smoking OR Health: the American Cancer Society, the American Heart Association, and the American Lung Association. The coalition was created following the 1981 National Conference on Smoking OR Health(18) to coordinate the activities of the three agencies and to work for change in public policy related to smoking. Each of the three organizations has its own program: the American Cancer Society's "Fresh Start" smoking cessation program and annual "Great American Smokeout Day"; the American Heart Association's work with schools and worksites using mass media to promote nonsmoking; the American Lung Association's "Freedom from Smoking" cessation program(19), work with schools to promote nonsmoking, and development of nonsmoking packages for pregnant women and their physicians.

Drug and Alcohol Abuse

Drug and alcohol abuse is a major social problem that contributes heavily to traffic and other accidents, to poor health, and to such social problems as disruption of the family. Measurable objectives to be reached by 1990 include reducing fatalities from motor vehicle and other accidents related to the use of alcohol; reducing mortality from cirrhosis; reducing the incidence of infants born with Fetal Alcohol Syndrome; reducing the number of adverse reactions to drug use; reducing the proportion of problem drinkers; increasing public awareness of risks associated with alcohol and drug use; and increasing the availability of employee assistance programs.

Alcohol abuse is the primary focus of the National Council on Alcoholism and, because of problems associated with drunk driving, alcohol abuse is an area of major emphasis for the National Safety Council. The National Council on Alcoholism adopted a Prevention Postion Statement in 1982, which called for a legal minimum drinking age of 21, raising taxes on and curbing advertising of alcoholic beverages, and displaying warning labels on containers(20). The National Safety Council produced two kits of materials: "Support 21," designed to assist citizens and groups who are working with State legislatures to raise the minimum drinking age, and "Drink OR Drive - The Choice is Yours." Other agencies concerned with alcohol abuse include the American Red Cross, through its "AIM" program for youth; Boys Clubs of America, through its *Alcohol Abuse Prevention* guide; and the YWCA, through its "Women as Preventors: An Adult-Teen Partnership." Misuse of drugs other than alcohol is addressed to some extent by the American Lung Association (marijuana); the National Kidney Foundation (adherence to therapeutic regimen and analgesic abuse), the local Junior Leagues, Girls Clubs of America, and AARP.

Nutrition

Health problems related to nutrition include obesity, which can lead to diabetes and high blood pressure; dental caries; problems in pregnancy; and dietary fat related to heart disease and cancer. Published national dietary guidelines include recommendations to reduce intake of sugars, sodium, and fat and to increase intake of dietary fiber. The problem of hunger in this country is still being documented, but undernutrition and dietary deficiencies of certain nutrients such as iron and calcium certainly play a role in poor health.

The 1990 objectives include reducing the proportion of pregnant women having iron deficiency anemia; eliminating growth retardation caused by inadequate diets in children; reducing the prevalence of obesity; reducing sodium intake by adults; reducing cholesterol levels; increasing public awareness of good dietary practices and of the relation between diet and disease; and increasing nutrition education in schools and by health professionals and others.

Nutrition has long been a priority area for the Cooperative Extension Service, which works through Extension Homemakers' Clubs to reach women and through 4-H Clubs to reach youth. Every State has a nutritionst on staff and home economists in the county offices are trained in nutrition education. The Girls Clubs of America is developing program material related to nutrition; the American Red Cross is developing a "Better Eating for Better Health" program; the American Heart Association promotes heart-healthy cooking through recipes and cookbooks; and the National Urban League includes nutrition as one of its three major health practices, especially as it relates to hypertension.

Control of Stress and Violent Behavior

Stress, while sometimes beneficial, can contribute to such health problems as fatigue, headache, obesity, depression, asthma, gastrointestinal disorders, and heart disease. It can also lead to such violent behavior as suicide, homicide, and child and spouse abuse. Defining and measuring stress are problems not easily resolved. More information is needed about the effects of stress on health and how to prevent and cope with stress-related problems.

The 1990 health promotion objectives related to stress include reducing homicide death rates among young black males; reducing injuries and deaths caused by child abuse; lowering suicide rates among young people; increasing public awareness of organizations and services available to help youth cope with stress; increasing the number of persons reached by mutual support of self-help groups; and expanding the scientific knowledge base about stress.

Stress is a priority area for the Association of Junior Leagues, which is concerned with problems of child abuse (95 local projects), domestic violence (99 local projects), and rape (8 local projects). The Association has position statements on stress as it pertains to children and domestic violence. The American Red Cross has developed a stress management program available to its staff; organizations such as COSSHMO and the YWCA include stress as part of their general health promotion efforts; and the National Urban League has eight affiliates working on stress-related programs.

Physical Fitness and Exercise

Regular physical exercise contributes to weight control, increases cardiovascular fitness, helps control stress, reduces cholesterol levels, helps prevent osteoporosis, and promotes a feeling of well being. More research is needed, however, to identify fully the health benefits of exercise.

The 1990 objectives related to exercise include increasing the proportion of children and adults who participate regularly in vigorous physical exercise; increasing public awareness about the role of exercise in promoting fitness; increasing the amount of research data available in this area.

The YWCA, YMCA, the four youth organizations, and the National Recreation and Parks Association (NRPA) all emphasize fitness in their health promotion efforts. The NRPA is part of the Coalition on Fitness in Recreation, created in 1980 to stimulate the development of fitness programs in local recreation and park departments. The NRPA campaign, "Life, Be In It," promotes fitness to the general public through the media (21). A cardiac wellness training project is also under way. Both the YMCA and the YWCA traditionally have offered fitness programs and have provided exercise facilities for members; 96% of local YMCA units and 90% of local YWCA units offer fitness programs. The Boy Scouts built fitness into their program from the beginning, tying it in with their outdoors activities. The Boys Clubs have a "Superfit Allstars" program, and Girls Clubs and Girl Scouts both emphasize fitness as well.

All five health promotion areas are being addressed to some extent by the national organizations interviewed in preparation of this paper, but activity in some areas is limited. Programs are most extensive where the behavior-health outcome link is most clearly defined (e.g., smoking and lung disease), where public demand influences program development (fitness), or where the technology exists to carry out effective interventions (smoking, high blood pressure). The greatest potential for health promotion activities exists where all three criteria are met.

To encourage their constituents to use their time, minds, and bodies in more creative and less destructive ways, voluntary associations are moving away from their traditional methods. They are setting an example by creating their own healthy environments. Some agencies have established policies about smoking, made healthful food choices available at organization-sponsored functions, and rewarded leaders and staff who practice healthful lifestyles. When these kinds of institutional behaviors become the rule instead of the exception, health promotion goals will become a reality.

Rationale for Selecting Activities

Among the factors influencing these particular voluntary organizations to undertake health promotion activities were the historical missions, constituent interests, proven methodologies, available funds, and marketing opportunities.

Mission and Priority Setting

Of the 21 organizations interviewed, about half said health promotion was always a part of their mission. Education of the public was seen as crucial to promoting the health of a special population or preventing certain diseases. A reason frequently cited for developing health promotion programs was meeting the needs or interests of the public, of association members, or of a particular target group.

In a recent national assessment to help set priorities for health promotion, local Girls Clubs identified nutrition, substance abuse, fitness, and reproductive health as areas requiring emphasis. The Club obtained funding support from a national trade association to develop new youth worker training materials and an audiovisual presentation for local clubs.

Many organizations, such as the American Heart Association, with 55 affiliates across the United States, have national and local program committees that establish program priorities. Locally developed programs are extensively piloted and field tested before being packaged and marketed to local affiliates. In the summer of 1984, "Heart At Work" program of modules and materials to promote healthy behavior at the worksite is being marketed nationally (22).

The National Urban League surveyed its affiliates and determined three priorities in health: high blood pressure control, family planning and parenting, and nutrition. As a result, local affiliates are encouraged to implement programs in these areas. COSSMHO surveyed its membership and found a lack of health promotion services targeted to Hispanics.

Other groups stressed that their emphasis changed as the body of scientific evidence linking human behavior and disease or disability grew or that their health promotion programs developed in a rational progression from related activities. For the disease-specific organizations, including the National Kidney Foundation, the American Heart Association, the American Lung Association, and the American Cancer Society, research findings are fundamental in setting priorities. These groups expect their programs to be modified in the future as research provides new evidence about the links between behavior and health and about the effectiveness of interventions in changing behavior. The American Red Cross set health promotion strategies and goals after a three-year study that involved chapters around the country, members of the Board of Governors, staff experts, and consultants from a variety of fields(12).

Structure and Staff

The structure of voluntary associations varies considerably. While most groups have local units of some kind as well as a national office, several organizations had only a national office (e.g., the National Health Council and the NRPA). Several organizations have individual members instead of or in addition to local units. AARP, for example, has 15 million individual members; 2,400 affiliated associations of retired teachers; and 3,500 AARP chapters. The National Safety Council has a membership of 12,000 organizations and a few individuals, plus two levels of local units—affiliates and chapters. Nonmembership associations may have one or more levels of organization below the national level. The American Heart Association has both chapters and affiliates; the American Cancer Society has divisions at the State level and for the larger metropolitan areas, plus local units, often on a county basis. The American Lung Association has constituents, mostly at the State level, and affiliates. The National Kidney Foundation has affiliates and chapters, and the National Urban League has affiliates.

The youth development organizations have a somewhat different structure. The Girls Clubs of America have 250 clubs organized into 125 administrative units, while local units of Boys Clubs, Girl Scouts and Boy Scouts are organized into councils; all have individual members at the local level.

The YWCA has 450 member associations plus numerous branches, totaling 5,000 locations in all, while the YWCA has 930 corporate units with branches totaling 2,200 local units. The Cooperative Extension Service includes 74 State land-grant institutions and 3,100 county extension offices.

Staffing these organizations varies greatly as well. At the national level, staff size ranges from a total of 8 up to 2,135. Some groups have staff located in several regional offices that are part of the national office. Associations with local units usually have paid local staff supplemented with volunteers, but in some cases, volunteers totally staff the local units. Many local United Way units are volunteer run, as are some American Red Cross chapters and all National Kidney Foundation chapters.

Funding

Reported funding sources for health promotion programs include foundation grants; voluntary contributions; sale of services or materials; Federal, State, and local government; private industry; United Way; the organization's general budget; and advertising revenue from magazines.

As associations gain more experience with the complexities of changing health behavior, they realize how costly health promotion programs are to implement. If the programs are to have any measurable effects, they must be supported and monitored over several years. Low cost, high participation programs such as screenings, healthfairs, and lectures are often identified as health promotion activities. When not targeted to people at high risk and provided with funds for follow-up, they often resemble public relations activities.

Budget size of the national associations is, of course, another characteristic that varies greatly, from a low of about $500,000 up to about $40 million. There is no ready source of information on the percentage of budgets spent on health promotion, but there are strong feelings on the part of some national associations that funds should not be diverted from biomedical research to the less understood behavioral aspects of health. The larger voluntary groups with strong track records in promoting health are in an advantageous position to begin examining the costs and effects of health promotion efforts.

Marketing

Voluntary organizations have demonstrated a remarkable ability to survive and grow, using a variety of strategies to attract the interest and donations of the public.

Disease- and problem-specific organizations have successfully appealed to the public's desire to help eliminate dreaded diseases or to solve distressing health problems. People are particularly predisposed to support causes in which they have a personal interest, such as the eradication of a disease from which a loved one has recently died. Indeed, many voluntary associations began through the banding together of people with similar histories of personal loss or suffering. The current proliferation of self-help and mutual support groups is evidence of this continuing trend.

Most organizations depend on a clear, recognizable identity to maintain public support, and for this reason may be limited in the extent to which they will participate in activities not specifically related to their concerns. Other organizations may limit the extent of their involvement to particular activities relevant to the population they serve or because health is only peripheral to their mission. It follows therefore, particularly in health areas, that a scientific base for program decisions is most important. Organizations expressed reluctance to allocate resources to programs with unproven links between behavior and health status change.

While some voluntary organizations use health promotion activities as a marketing device, considerable potential remains for agencies to attract support by offering health promotion services. The public increasingly is interested in better health and is seeking and using a variety of community resources to achieve improved health. Marketing specific programs to employers is a growing area of interest to voluntary associations but does raise serious questions of how to reach the unemployed and others not able to pay for services.

Expectations for Future Activities

Interagency Cooperation

Voluntary associations have tended in the past to "do their own thing" more often than not. However, for health promotion efforts to make any sort of impact, concerted action by all segments of the community is critical.

The formation of coalitions, such as the Healthy Mothers, Healthy Babies Coalition, the Coalition on Smoking OR Health, and the Coalition on Fitness Through Recreation, is an exciting trend which bodes well for increased cooperation between public and private organizations that share certain goals. While coalition building has been a successful strategy at the national level to bring together organizations to work more effectively toward goals, it will take some time for such coalitions to translate into similarly effective local coalitions and cooperative efforts.

Healthy Mothers, Healthy Babies (HM/HB) is a partnership among government, professional, and voluntary organizations and agencies whose aim is to increase the awareness of pregnant women, particularly those at high risk, about the importance of good health for themselves and their unborn babies. The purpose of the coalition is threefold:

- to provide information promoting healthy behavior to pregnant women and women planning pregnancy;
- to increase their understanding of health risks and the importance of taking personal responsibility for their health and the health of their infants; and

- to motivate them to take action to protect their health, obtain regular prenatal care, and seek other counsel or assistance when needed.

Improving maternal and infant health depends largely on the provision of high quality prenatal, obstetrical, and neonatal care; preventive services during the first year of life; professional education; and broad public information activities aimed at pregnant women and their families. HM/HB is organized primarily to work toward improving the quality and reach of public education on prenatal and infant care through the activities of individual organizations and through collaborative effort undertaken by the coalition.

Campaign materials deal with such important topics as nutrition, breastfeeding, smoking, alcohol use, the need for women to continue seeing their physician during the course of pregnancy, and the use of drugs and over-the-counter medications during pregnancy. Materials developed include newspaper columns, radio public service announcements, and a series of six posters and accompanying information cards developed for use in public clinics, maternal and child health centers, Women, Infants, and Children (WIC) distribution sites, and other settings where high-risk women are likely to be exposed to them. Also available are a prepackaged television show on prenatal care suitable for local origination and a national promotion campaign on breastfeeding for health professionals. The coalition serves as a locus for the exchange of information and resource materials through the publication of a periodic newsletter and a directory of educational materials on prenatal and infant care.

Interagency cooperation, other than through coalitions, also takes place through a variety of formal and informal arrangements at both national and local levels. The various youth organizations, the Junior League, and the Extension Service, for example, usually work with local organizations. The American Cancer Society indicates 30% of its activities are carried out in cooperation with other agencies. A trilateral project of the national organized Black community, the American Red Cross, and the Department of Health and Human Services was initiated in September 1981 for high blood pressure education and control.

An example of a local health promotion program which involved extensive community organization and interagency cooperation is the Cooperative Health Risk Reduction Program (CHRRP) (23). Initiated by the Health Education Center (HEC) of Pittsburgh, CHRRP was a cooperative effort of the HEC, the Allegheny County Health Department, and the University of Pittsburgh's Graduate School of Public Health. Over 100 community organizations, including local chapters of voluntary health associations, churches, public agencies, and businesses, were involved in CHRRP. Funding was provided through the Health Risk Reduction Program of the Pennsylvania Department of Health.

Cooperation is needed more than ever as technology changes rapidly, costs continue to rise, and groups recognize that success in working toward mutual goals requires expanded constituencies. Effective interagency cooperation in program development and implementation is not a simple process. Commitment to mutual goals is essential, and participants must be willing to forget about protecting their own turf. Careful delineation of roles and responsibilities must be agreed on in advance of any cooperative efforts if success is to be achieved. Most of the groups surveyed for this paper described extensive cooperative activity and expressed their expectation that such activity would continue to grow.

Increased Awareness of Primacy of Health Promotion

The voluntary sector's interest in health promotion has clearly grown since the publication of *Healthy People* (1). A parallel trend seems to be the use of a wider range of strategies to work for change. Organizations not only are providing education designed to help individuals change their behavior but also are addressing environmental and social factors that influence human behavior. These strategies are important in establishing a national climate receptive to health promotion concepts. A positive sign is that books, television, magazines, and newspapers are all featuring popular health promotion topics.

Voluntary associations receive a great deal of support from the business sector, where health promotion is receiving increased attention as one method to improve employee health and well being and to contain medical care costs. Although the relation of health promotion to cost savings has yet to be documented, the growing interest of business and labor is encouraging.

The organizations surveyed expressed much interest in learning about trends in health promotion, expect to become more involved in these activities, and are looking for effective ways to work toward health promotion goals.

Targeting Programs for High-Risk Groups

Organizations that focus on a particular population group, such as Blacks, Hispanics, youth, the elderly, or women, are already involved with targeting programs to meet the needs of these groups. They are also determined to protect their priorities—namely, economic opportunity, adequate food and housing, and access to quality medical care. In this regard, specific concern is that a national health promotion initiative will obscure certain groups' needs for basic medical care and related social services. Health promotion services will not be accepted if they are seen as a substitute for other services. It is crucial, therefore, that population-specific organizations play an important role in designing health promotion programs relevant to the groups they serve.

ISSUES RELATED TO HEALTH PROMOTION AND VOLUNTARY ASSOCIATIONS

Who Gets What Piece of the Pie? The Issue of Funding

In her classic book *Leadership for Volunteering* (24), Naylor made the distinction between voluntarism, the organization of persons working together toward reaching shared goals, and "volunteerism." Although volunteerism refers to the individual experience of offering a service without pay, voluntary associations know that real dollars are needed to maintain operations. Most of the services now carried on with public funds were once only available because individuals volunteered contributions of time and money. Voluntary associations are concerned that they will be expected to pick up an ever-growing portion of the cost of health promotion efforts with minimal government support. The need to generate revenues to maintain current budgets will negatively influence intergroup cooperation unless advance plans are made to resolve potential conflict. These plans could include conferences, such as this one, where leaders have an opportunity to share problems and work toward solutions.

Creative ways of funding health promotion efforts will certainly be needed if demands on internal budgets cannot be stretched to cover them. Voluntary organizations already are using corporate and family foundation support for developmental projects, charging fees on a sliding scale for continuing services, seeking funding from the corporate community as a source of support, and competing for state block grant funds for prevention. Federal support for health promotion, always a small fraction of the public health dollar, is not increasing. Preliminary findings from an Urban Institute Study of the "Nonprofit Sector in an Era of Government Retrenchment" show 57 percent of the groups receiving government funds had cutbacks in 1982; 39 percent were experiencing increased service requests, and 54 percent were seeing service demand unchanged(25). Groups throughout the country reported they were responding to the squeeze by seeking new funding sources, curtailing services or increasing charges, changing staffing patterns, changing management, and increasing the use of volunteers.

In 1981, a Gallup survey on volunteering was commissioned by the Independent Sector, a national coalition of over 350 voluntary organizations, private foundations, and corporations(26). The survey found that 52 percent of American adults volunteered in the year prior to the survey. Among adult volunteers, 12 percent in the health area (e.g., hospitals, rescue squads, health clinics, etc.). The survey also found that 91 percent of all volunteers had made a charitable contribution in the past year, and that frequently volunteers donated money to organizations for which they volunteered.

A promising new opportunity is to fund health promotion through third-party reimbursement. A study of the cost benefit of health promotion services in physicians' offices currently is under way with support from commercial insurers and private foundations(27). Blue Cross and Blue Shield also is investigating ways to pay for health promotion services.

Connected to the issue of generating fees is the question of who pays for the underserved. Whereas this was clearly a private responsibility in the nineteenth and twentieth centuries, it now has become a shared responsibility. As part of an effort to prevent those unable to pay from falling through the funding cracks, creative public and private efforts like the Health Promotion Training Network and the Healthy Mothers, Healthy Babies campaign are combining public and voluntary resources to improve professional health promotion skills and to reduce infant mortality. Such cooperative efforts will be needed for each of the risk areas if there is to be equitable distribution of the health promotion funding pot.

Who Owns This Risk? Who Owns the Job? The Issue of Competition

To avoid or mimimize territorial conflicts in inter-association dealings, voluntary organizations need to take into consideration differences in operational and organizational styles. No single approach will work for every voluntary association interested in risk reduction. Nor can one group, acting independently, create the impact needed to change established behaviors. Approaches used by organizations will differ on the basis of location, the population served, accessibility to existing resources, and the readiness of the community to accept change. Where they should not differ is on the need for inter-agency cooperation related to risk reduction.

An internal issue requiring equal attention is the potential conflict between agency departments with competence and interest in one aspect of the health promotion program. Because health promotion requires a variety of special skills in communication, training, and programming, cooperation among professionals within the agency is crucial. Those health behaviors clearly related to several diseases and touching special populations cannot be changed without the benefit of many special disciplines and staff experiences. Successful health promotion programs use the expertise of health educators, social workers, psychologists, administrators, and communicators trained in the social and behavioral sciences. They also use professionals trained in the biomedical sciences, including physicians, nurses, nutritionists, and exercise physiologists. A conflict between the public relations department, the research team, and the program division over whose job it is to reduce smoking or change eating habits among teenagers detracts from achieving overall program goals.

In Pittsburgh, interagency cooperation led to the organization of the Health Education Center(23). Existing groups lent their support to organizing a voluntary organization whose only mission is the promotion of health and the prevention of disease. Its operating principles state that no program should be undertaken unless it is done in cooperation with others, and no program should be undertaken if it is already being done by some other agency in the community. Links are established with identified groups in the community through written memoranda of understanding, and interdisciplinary teams comprise advisory committees for all risk reduction programs.

Lay and professional leadership of voluntary associations is drawn from people who care about the mission of their organization. Often these leaders have experienced a personal problem that received little attention until their association was formed. Among those interviewed for this paper, there was general agreement that the health promotion goals outlined in the Surgeon General's Report deserved more attention from all segments of our society. At the same time, an underlying current of concern about diverting energies from established programs to new or untested activities was expressed. Hard decisions will be required of organization leaders to maintain a program balance internally and externally which assures health promotion services for people who need them the most.

Whom Can We Trust? The Issue of Quality Control

There is increasing acceptance of the multifaceted nature of health and the need to approach its promotion in terms of environment, genetics, and behavior as well as in terms of access to medical care. When good health is everyone's business, the issue of who is and/or should be delivering health promotion services is raised. Physicians and other professionals with years of specialized training and experience are justifiably skeptical about self-appointed healers offering panaceas for treating disease and disability. On the other hand, thoughtful practitioners are increasingly aware of the positive influence of lay persons, particularly peers, on individual health behavior. It is estimated 75 out of every 100 adults who experience some illness or injury every month take care of themselves without professional intervention. European studies show that of those who seek professional health care, from 75 to 85 percent already have tried taking care of themselves(28). In less technologically advanced societies the methods of self-care were transferred over time by trusted family members. Today, adult education programs encourage lifetime learning of new skills, and mass media and advertising provide information on every imaginable aspect of health. Large-scale studies such as the Stanford Heart Disease Prevention program have developed protocols to use in training a cadre of volunteers for reducing risks from smoking and diet(29). Profit sector programs already are using lay persons for smoking cessation, weight control, and exercise. The roles of professionals and nonprofessionals in helping to promote healthy behavior are not clear-cut.

An examination of the literature in the field of mental health suggests that knowledge about what happens when either professionals or nonprofessionals intervene in behavioral problems is still "vague, poorly researched and inconclusive"(30). High standards of performance for health promotion should be expected from any person involved in the program. Voluntary organizations are in the enviable position of being able to address the issue of quality because of their ability to muster support from professionals and lay persons. They traditionally have set standards of practice for volunteers by establishing credentials and providing training. The Red Cross's experience in water safety and CPR (cardiopulmonary resuscitation) training and the American Heart Association's work in high blood pressure monitoring are two obvious examples. Standards of quality control for all health promotion practitioners are essential. They should include, as a minimum, written statements of objectives, evidence of a scientific basis for the approach being used, evidence that intervention materials have been tested for the target population, demonstration of the paid or volunteer staff's ability to organize and conduct the intervention and mechanisms that link intervention, practitioners with other community programs.

Who Has The Right to Take Risks? The Issue of Free Choice

Self-determination, the right to make choices, is part of the American value system. Its relation to health promotion is one of the most complex issues facing the field. The idea that health is in any way related to voluntary choices on the part of the individual is relatively new and to some, a radical idea.

At the core of any voluntary organization for health is a belief that the consequences of disease and disability can be averted. In much of the health promotion literature, an underlying assumption exists that certain behaviors are mostly voluntary, and choosing or rejecting them is up to the individual. Other literature supports the determinists, who believe people are preconditioned during their childhood to certain behaviors that put them at greater risk for disease. According to this assumption, smokers, drinkers, and overeaters should not be held responsible for their adult behavior and should not be blamed for the health consequences of their actions.

There is no doubt that healthy lifestyles are becoming increasingly attractive to more and more Americans—at least in theory. At no other time in our history has it been so popular to talk about "cardiovascular fitness," "low fat diets," and "how many times I've quit smoking." The challenge for voluntary associations and others committed to health promotion is to translate that theory into a lasting reality.

Jeannette Simmons, formerly of Harvard University, Scott Simonds at the University of Michigan, and Godfrey Hochbaum at the University of North Carolina at Chapel Hill, are among the academicians who began several years ago to argue for careful examination of the complexities involved in trying to influence health behavior in a free society. Simmons urges as a goal "for individuals to internalize the values and patterns of behavior associated with healthful living and to build these into childrearing practices so that future generations will not be faced with the same illness conditions"(31). Simonds calls attention to "America arriving at one of its proverbial crossroads: Which way next to promote the nation's health that is equitable and fair?"(32). Recognizing that "human health behavior is of such vast complexity and variability; is still so little understood, and so difficult to influence," Hochbaum has urged collaboration between social marketers and health educators in defining roles and selecting strategies for reaching national objectives(33).

The most important ethical issue identified in a University of Tulsa study of health educators was a concern about consumers being manipulated and losing individual rights as a result of health promotion(34). Voluntary associations are in a strong position to ensure decisions made by individuals are respected while not impinging on the rights of others.

SUMMARY

A review of the historical role of voluntary associations in promoting health and an analysis of the information gathered from twenty-one national groups has helped to identify the unique characteristics of various types of voluntary organizations and the increasing national interest in voluntary action to improve health behavior. Even with changes in Federal and State funding since the 1930's, changes in the kinds and numbers of volunteers, and changes in health promotion needs, voluntary action for health promotion is very healthy indeed. The full impact of voluntary associations' efforts to encourage and help individuals and groups adopt and maintain lifelong positive health behaviors has yet to be felt.

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APPENDIX: VOLUNTARY ORGANIZATIONS INTERVIEWED FOR THIS BACKGROUND PAPER

American Association of Retired Persons
American Cancer Society
American Heart Association
American Lung Association
American Red Cross
Association of Junior Leagues, Inc.
Boy Scouts of America
Boys Clubs of America
Cooperative Extension Service
Girls Club of America, Inc.
Girl Scouts of U.S.A.
National Board of the YMCA's of the U.S.A.
National Board of the YMCA of the U.S.A.
National Coalition of Hispanic Mental Health and Human Services Organizations (COSSHMO)
National Council of Alcholism
National Health Council
National Kidney Foundation
National Safety Council
National Recreation and Park Association
National Urban League
United Way of America